

GenCore version 4.5  
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM nucleic - nucleic search, using sw model

Run on: November 8, 2001, 13:08:26 ; Search time 5703.22 Seconds  
(without alignments)  
18957.777 Million cell updates/sec

Title: US-09-227-881-3

Perfect score: 6169  
Sequence: 1 attctgttcagtttactctc.....cttgtccctccatgtcag 6169

Scoring table:  
OLIGO\_NUC  
Gapop 60.0 , Gapext 60.0

Searched: 17159718 seqs, 8763200856 residues

Word size : 8

Total number of hits satisfying chosen parameters: 32373049

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : Pending\_Patents\_NA\_Main:\*

```
1: /cgn2_6/ptodata/2/pna/US06_COMB.seq:*
2: /cgn2_6/ptodata/2/pna/US07_COMB.seq:*
3: /cgn2_6/ptodata/2/pna/US08_COMB.seq:*
4: /cgn2_6/ptodata/2/pna/US08_COMB.seq:*
5: /cgn2_6/ptodata/2/pna/US08_COMB.seq:*
6: /cgn2_6/ptodata/2/pna/US08_COMB.seq:*
7: /cgn2_6/ptodata/2/pna/US08_COMB.seq:*
8: /cgn2_6/ptodata/2/pna/US08_COMB.seq:*
9: /cgn2_6/ptodata/2/pna/US08_COMB.seq:*
10: /cgn2_6/ptodata/2/pna/US08_COMB.seq:*
11: /cgn2_6/ptodata/2/pna/US08_COMB.seq:*
12: /cgn2_6/ptodata/2/pna/US08_COMB.seq:*
13: /cgn2_6/ptodata/2/pna/US08_COMB.seq:*
14: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
15: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
16: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
17: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
18: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
19: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
20: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
21: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
22: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
23: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
24: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
25: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
26: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
27: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
28: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
29: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
30: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
31: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
32: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
33: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
34: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
35: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
36: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
37: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
38: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
39: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
40: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
41: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
42: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
43: /cgn2_6/ptodata/2/pna/US09_COMB.seq:*
```

# SUMMARIES

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Score	Query Match	Length	ID	Description
44:	6169	100.0	6169	US-08-938-669-3	Sequence 3, Appl1
45:	6169	100.0	6169	US-09-227-881-3	Sequence 3, Appl1
46:	6169	100.0	6169	US-09-306-828-3	Sequence 3, Appl1
47:	5271	85.4	5271	US-09-227-881-34	Sequence 34, Appl1
48:	5271	85.4	5271	US-09-306-828-34	Sequence 34, Appl1
49:	5271	85.4	5271	US-08-938-669-1	Sequence 1, Appl1
50:	5271	85.4	5271	US-09-227-881-1	Sequence 1, Appl1
51:	5271	85.4	5271	US-09-306-828-1	Sequence 1, Appl1
52:	5271	85.4	5271	US-09-227-881-1	Sequence 1, Appl1
53:	5271	85.4	5271	US-09-306-828-1	Sequence 1, Appl1
54:	5271	85.4	5271	US-09-227-881-1	Sequence 1, Appl1
55:	5271	85.4	5271	US-09-306-828-1	Sequence 1, Appl1
56:	5271	85.4	5271	US-09-227-881-1	Sequence 1, Appl1
57:	5271	85.4	5271	US-09-306-828-1	Sequence 1, Appl1
58:	5271	85.4	5271	US-09-227-881-1	Sequence 1, Appl1
59:	5271	85.4	5271	US-09-306-828-1	Sequence 1, Appl1
60:	5271	85.4	5271	US-09-227-881-1	Sequence 1, Appl1
61:	5271	85.4	5271	US-09-306-828-1	Sequence 1, Appl1
62:	5271	85.4	5271	US-09-227-881-1	Sequence 1, Appl1
63:	5271	85.4	5271	US-09-306-828-1	Sequence 1, Appl1
64:	5271	85.4	5271	US-09-227-881-1	Sequence 1, Appl1
65:	5271	85.4	5271	US-09-306-828-1	Sequence 1, Appl1



[illegible]

OY	2401	ccggaagaagaaatggaaaggggaaactaaatcgaagggaaatctggaagggacagatgttc	2460
Db	2401	CCAGAAAGGAAATGGAGAGGGGAAACTACTCTAACGGCAAACTCTGGAGGGACAGTGTTC	2460
OY	2461	ctcaagaggaaaggggcctccacgctccagggaaatcccaagagctgaggagctgcagggag	2520
Db	2461	CTCAGAGGGAAGGGGCGCTCCACGCTCCAGAGAAATTCAGAGAGGTGGGGACGTCCAGGGAG	2520
OY	2521	tggggagcgtggggtctgagcgggtgctgaaagcgaggaagtgaaaggcgaagctgaa	2580
Db	2521	TGGGGAGCGCTGGGCTGAGCGGGTCTGAAAGGCGAGGAAGGTGAAMAGCGCAAGGCTGAA	2580
OY	2581	gctgcgccagatgttcaagtggttcaacgggcttggaatttcgltgttcctgtgagc	2640
Db	2581	GCTGCCAGAGTGTTCAGTGTGTTCACGGGGCTGGGAACTTTTCCTTTCCTGTGTGAGC	2640
OY	2641	ctttctactcttcctctgcttggaaggagaagactatccatgaaggagtgcagttc	2700
Db	2641	CTTTTATCTTTTCTCTGCTTGAGGAGAAAGACTTATTTTCATGAAGGATGCAAGTTTC	2700
OY	2701	ataaagtcagctgtataaattcccaagggtgtcatalggtgttctcctcaaggaagcccttat	2760
Db	2701	ATAAAGTCAGCTGTAAATATTCACAGGAGGTGATGGTTCCTTCACAGAGGCTTTAT	2760
OY	2761	ttaatgggaataatgaagaagcgagctccattccbaagccgttaattccacggaaagaatgac	2820
Db	2761	TTAAATGGGAATATGAGGAAGCGAGCTCATTTCTACGGCGGTAAATTCAGGAAAGAAAGTAC	2820
OY	2821	tggagtcttcttcctcattcagctctctgggcaactactaagccctgtgtggagcttgctta	2880
Db	2821	TGGAGTCTTTTCTTCAATGTCCTCTGGGCAACTACTCAGCCCTGTGTGGACTTGCTTA	2880
OY	2881	tgcagaagcgttcgaagaaccttggaaatcaggaagctcggatttcttctcgtgtctgcaat	2940
Db	2881	TGCAAGAGCGGTGAAACCTTGGAATCAGAGACTCGGTTTCTTTCAGTTCCTGCATTT	2940
OY	2941	ggtgtgctgtgcagccgttgggcaagtgtctctcttccctggggccaatgctctctgct	3000
Db	2941	GGTGTGCTGTGTGCAGCCGTGGGCAAGTGTCTCTTCCTCGGCGCATAGTCTTCTCTCT	3000
OY	3001	ataaagacccttgcagcctctgtctctgtgaacatctcccggtgatctctctgtagaggg	3060
Db	3001	ATAAAGACCCCTTGACGCTCTCGTGTCTGTGACACTTTCCTGTATTTCTCTGTAGGGG	3060
OY	3061	ggaatgtctgaagagggaaggaagcagaagcttggagcagcttgaagccaaagggaagtggagg	3120
Db	3061	GGATGTGAGAGGGGAGAGGAGGCAAGCTGAGGACAGCTGAGGCACAGGGAGGTGAGGG	3120
OY	3121	ggacsaagagcaggcagaagcttgggtctccatcaagctcactatgatacgttcagactc	3180
Db	3121	GGACAGGAAGCGAGGACAGAGCTGGGTGCTCATAGTCTCAGTATCACCTTCAGACTC	3180
OY	3181	caggagccgaagacccaatgtcttaaggaaagcttaatgaacccaacagcgcbaatttctc	3240
Db	3181	CAGGAGCCGAGACCCAAATGTTTCAGGAAGGTCAATGAACCAACAGCCAACTTTTCTT	3240
OY	3241	tccccaagatatgaacaatgtcatttgcacaataacaaagaatgcagagacttaactgtt	3300
Db	3241	TCCCTTAAGCATAGACAATGTGCAATTTGGCCATTAACCAAAAAGATGCAGAGACTAATGCT	3300
OY	3301	ggtatgcttcttgccttgcattcaaaaacttgggcagagcagttggaanaatgtccagaatgt	3360
Db	3301	GGTAGCTTTTGGCTGTGGCATTTCAAAAATGTGGGCGAGAGCAAGTGGAANAATGCCAGAGATTG	3360
OY	3361	ttaaaccttcaaccttgacagcagccccaagcagctcagctgacgtctgacagcaagg	3420
Db	3361	TTAAACTTTTCAACCTTGACCAACACACCCACAGCAGCTCAGCAATGTGACTCTGCACACAGG	3420
OY	3421	agtgagctgcagcagggaggaggagaagaaagagagagatgagtgtatgagcaagaaag	3480
Db	3421	AGTGAGCTGCAGCGCAGGGGAGGAAGAAAAGAGAGGAGTATGCTTATGACCAAGAAAG	3480
OY	3481	acaagatccaatccaaggcagtgaggatctgaaccaaggagatgaatccaagctgacccagg	3540

```
Db 3481 ACAGATTTCATTCAGGGCAGGGGAAATTGACACAGGAGATTATAGTCACGTCGATCTCGG 3540
Oy 3541 gtctcaggaggcagggtcatactgctgggggaaaaaaacagctcaggaggagctgggaga 3600
Db 3541 GTTCTAGGAGGAGGCGCTATATTGTGGGGGAAAAATCAAGTTCAAGGAAGTGGGAGA 3600
Oy 3601 ccggaattcctaactatacttctccttcaagcctgagtaactctgagcaagtcacaag 3660
Db 3601 CCGGATTTCATTAACATTAATTTTCCCTTACAAAGCTGAGTAATCTGAGCAAGTCACAAG 3660
Oy 3661 gtagtaacgtaggcctgtaagatctactagcttcccttataggaactcttctctgctg 3720
Db 3661 GTAGTAACTAGGCTGTAAAGATTACTTACTTCTCTTATTAAGAACTCTTTTCTCTGT 3720
Oy 3721 ggaagctagcagcaaaaggagcaatcccgcttctcttcaacagaaagaaacatccctaaag 3780
Db 3721 GGAATTAGCAGCAACAGGCAATCCCGTTCTTTTAAACAGAAACAAATCCCTAAAGAG 3780
Oy 3781 taaagccaacagatctcaagcctagctgctgctgactatactgagcttcttggaaaaat 3840
Db 3781 TAAAGCCAAACAGATTCACAGCTAGGCTTGCTGACTATATGATTTGGTTTTCAAAAAT 3840
Oy 3841 catctcagagatgttactctctgactcagaataatgagactagctaccccttgctcagctg 3900
Db 3841 CATTTCAAGCATGTTTACTATCTGATTGACAAAAATGAGACTAGTACCCTTTGGTCACCTG 3900
Oy 3901 taaacaacaacccagctgctcaatgctcgaagctcaagctcaactgagcaacaaatcaaaa 3960
Db 3901 TAAACAACAACCCAGTGTAAATGTCTCAAGTTACAGGCTTAAGTGCAGAAACCAATCAAAA 3960
Oy 3961 agaatagaaactcttaagcaaacctgcttctccacaactcggaggctgagctcgcaggagc 4020
Db 3961 AGAATAGAACTTTAGAGCAAACTGTGTCTTCACATCTGGAGAGTGAAGTCTGCCAGGC 4020
Oy 4021 agcttggaatacttactctcaagaagtactgacccgtgctgctgctatacaacaataaagt 4080
Db 4021 AGTTTGAAATATTTACTTCAACAAGTATGACACTGTGTGGATTAAACAAATAAAGT 4080
Oy 4081 tgcctcaagagcaactatctcaagctgagctcaagctcaactctcagagcttctgataat 4140
Db 4081 TGCCTCAAGGCATCATTTATTTCAAGGCTTAAAGTTACTTCTGACAGCTTTGGTATAT 4140
Oy 4141 ctactggcctactgccaactgcttctgcttctcctctgggcttcaatgtaaaagcag 4200
Db 4141 TTTTGTGGCTATTCCTCATTTGCTTTTCTCTTTGCTTTTATTAATGTAAGACAG 4200
Oy 4201 ggaatctaacctcacagctcagaagaagcctgctgaaattgaaatgagaataataactctc 4260
Db 4201 GGAATATTAACCTACAGTCCAGAAAGCCTGTGAATTTGAATGAGAAAAAATTAACATTTT 4260
Oy 4261 tgcctcacaacccctctcaactaaactcaacatcttcaactcgcgaaatagagccaataa 4320
Db 4261 TGTCTTTACACACTTCTAAGTAAATTTAAATTTATTCATTGCGAATAGAACCATTAATA 4320
Oy 4321 ctcaaaagctgctaaataacagtaactgctgctgctgctcaactcaaaatagaaatcagaacat 4380
Db 4321 CTCAAAGTGTGTAATTAACAGTACCTGTGATTTTGTCTATTACCAATAGAAAAATCACAGCAT 4380
Oy 4381 ctactactatactcaactgctgctgagaaatagctgtaagtgaaatactataactcaaaacta 4440
Db 4381 TTAATACTATTAATTAACATGTTGTGAGATAGCTGTGAATGTAATTAATTAACATAAACA 4440
Oy 4441 ctctggaatctgaagccctcctgctgagctgcttctcaacatatacaatacaaacatgcttaaa 4500
Db 4441 CTTTGAATATTAAGACCTGCTGATCTGTTTAAACATATTAATTAATTAATTAATTAATA 4500
Oy 4501 attctgatactctgataatcaatactcaactatactgcttctcctctgtaactatactt 4560
Db 4501 ATTGTGATATTTTGAATTAATCATATTTTCATTTATCATTTGTTTCTTGTGAATCATATTTT 4560
Oy 4561 atatactctgaataacatctctcctgagaagcttcccaagcttcaacaagaagcttctgag 4620
Db 4561 ATATATTTGAAAAATCTTTCTGAGAAGAGTCCCAAGATTTCACCAATGAGTTCTTGG 4620
Oy 4621 catgcacacacacagagtaagaactgtaactagaagctcaacatctgactgctgaga 4680
Db 4621 CATGCACACACAGAGTAAAGTGAATGATTAGAGGCTTAACATTGACATTTGGTGGCTGAGA 4680
Oy 4681 tgcagaactgaaatagaagcttctccaaagatacaacagctgcttcttaagctagaggctg 4740
Db 4681 TGCAGACTCAAAATTAAGAAATTTCTCCCAAGATACACAGCTTTGTTTAAAGCTAGGGGTG 4740
Oy 4741 aggggggaaactcgcgcctctctagaagatgctctcccttgagagctgtagggtgctgctc 4800
Db 4741 AGGGGGAAATCTGCCTCTTATAGGAATGCTCTCCCTGAGCTGTGTAAGGGTGGCTGTC 4800
Oy 4801 ctgctgctcgcgcctgctgcttctctctgctcctcgcagctccttaaaagactgcttct 4860
Db 4801 CTGTGTTTGGGCTGGCTGTATTTTCTCTGTCCTGCTCCGCTACGCTTAAAGCACTTGT 4860
Oy 4861 ggaatccagcttccctagcaagctgctcgcagagctgcaagcttctcaatgagcttgcagag 4920
Db 4861 GGAATCTCAAGTCTTACATAGTGCCTGCAAGTGCAGGTTTCAATGAGTTGCAAG 4920
Oy 4921 tgaatggaataataaactagaataatactctgctgctgtaaaatcagaacccgtagctgctg 4980
Db 4921 TGAATGGAATATTAACCTACAAATATATCTTGTGAAATCACACACCAGTATGCTGTG 4980
Oy 4981 tgcgaagctgctgaagctgctgctgctgctgctgctgctgctgctgctgctgctgctgctg 5040
Db 4981 TGTAACTGTGTGACGCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 5040
Oy 5041 taagaactatatttgggtaaggctgcaataacttggagctgcttctttaaagaagaatc 5100
Db 5041 TAGGAATATTAATTTGGGGTATGGGTGCATTAATTTGGATGTCTCTTTTAAAAAATC 5100
Oy 5101 caaagagactctcggaaagcttattcttaagaactctgctcgcgaagctggaagcaacccc 5160
Db 5101 CAACAGACTTCTGGAAGGTTATTTTCTTAAGAAATCTTGTGGAAGCTGGAAGCAACCCC 5160
Oy 5161 cctctgacagcccaacccagcctcaagctgagcaactctgcttctccccaatgaaggctg 5220
Db 5161 CCMGTGACAGCCCAACCCAGCCTCAAGTGGCAACCTCTTCTCCCAATGAAGGGCTG 5220
Oy 5221 gctcccaatataataaactctctggagctcgggcaatgagccagcaagcccaatc 5280
Db 5221 GCTCCCAATATTAATAAACCTCTGAGACTCGGCATGAGCCACAGCAAGCCCAATC 5280
Oy 5281 caagcaactctcaagcaagagactctcagaaggaaagcctcaagcctctgcaatga 5340
Db 5281 CAGGCACTCTCAGCAGCAGAGCTTTTCCAGAGAAAGCTTCACCAAGCTCTGCAATGA 5340
Oy 5341 gcttctctgctgcaagctgctgcaagcttgggctgagatgagcagctgctcagctgctg 5400
Db 5341 GCTTCTCTGTGCAAGTGTGTGCAAGCTTGGCTGAGATGGCCAGCTGTCCAGCTGTG 5400
Oy 5401 tcttgccctgctgctgctgctgctgctgctgctgctgctgctgctgctgctgctgctgctg 5460
Db 5401 TCTGCTCTCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 5460
Oy 5461 acaagagctgcaagctgcaagctgcaagctgcaagctgcaagctgcaagctgcaagctgca 5520
Db 5461 ACCAGAGTGGCCGATGCCAGTATACCTTCAAGTGTGCCAGTCCCAATGAATCAGCTGCC 5520
Oy 5521 caagagagagccagccagctgctgcaagctgcaagctgcaagctgcaagctgcaagctgca 5580
Db 5521 CAGAGCAGAGCCAGGCGATGTGATCATCATTAATTAACAGAGCAGCAGCAGCAGCAGC 5580
Oy 5581 gcttagaactgagagccacaaagctcgaactcgaactccttggaagctcctccacaaat 5640
Db 5581 GCTTAGACTGTGAGGCGCACCAAAAGCTGCACTGAGCTCCCTGAGAGCCTCTCCCAAT 5640
Oy 5641 tgaacttgaagagagctgcaagagcccaagagagacccaagagagagctgcaagagagctg 5700
Db 5641 TGACTTTGACAGGCTGCAAGGCCCCAGAGACCTCAGAGAGGGGCTGCAGAGGAGACTGG 5700
```



Db 1261 tacagccagaaagctccgtgaggtgaggtctgtgtcttaacactacctatagtcttac 1320  
QY 1321 acctgagctactgcaaacctctgctccctccaggttcaagcaattctcctgtctcagctcc 1380  
Db 1321 acctgagctactgcaaacctctgctccctccaggttcaagcaattctcctgtctcagctcc 1380  
QY 1381 cggctagctgggactaaaggcgcagccggcctaatttctgtatgtgtatgagaatggg 1440  
Db 1381 cggctagctgggactaaaggcgcagccggcctaatttctgtatgtgtatgagaatggg 1440  
QY 1441 gtttcaacaatatagaccggcctggtctctgaaactctcagctcaggtatccaccacctc 1500  
Db 1441 gtttcaacaatatagaccggcctggtctctgaaactctcagctcaggtatccaccacctc 1500  
QY 1501 agcctctcaaatgtctgaggtatcaaggaatgataccgcgcgcgcgcgcgcgcgcgcgc 1560  
Db 1501 agcctctcaaatgtctgaggtatcaaggaatgataccgcgcgcgcgcgcgcgcgcgcgc 1560  
QY 1561 ttaataaggaaataactgtaattgttttaataaaccaagaaggaaacagacaaagctgtga 1620  
Db 1561 ttaataaggaaataactgtaattgttttaataaaccaagaaggaaacagacaaagctgtga 1620  
QY 1621 taaattcaaggaaatcttggagatgggagatggtgcgaatgagctgcctgcctcagctcag 1680  
Db 1621 taaattcaaggaaatcttggagatgggagatggtgcgaatgagctgcctgcctcagctcag 1680  
QY 1681 caactgtctcactcaacttctctccctcaatccatcttcaagctgaagttacatttatt 1740  
Db 1681 caactgtctcactcaacttctctccctcaatccatcttcaagctgaagttatttatt 1740  
QY 1741 caccatgactcttctgtaagcctccacatctgttactgaaataaagatatacataaactag 1800  
Db 1741 caccatgactcttctgtaagcctccacatctgttactgaaataaagatatacataaactag 1800  
QY 1801 ttcacatttggggcgaactctgtgtgtgtataggaggagagagatcccccagagactcct 1860  
Db 1801 ttcacatttggggcgaactctgtgtgtgtataggaggagagatcccccagagactcct 1860  
QY 1861 tgaagccccgc 1920  
Db 1861 tgaagccccgc 1920  
QY 1921 tgggtgtctccgagcaaaccttgcagccgtgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 1980  
Db 1921 tgggtgtctccgagcaaaccttgcagccgtgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 1980  
QY 1981 gaaactgtgacttctacttctctgtgtgactgttcatctcatctccagcatcatctgacaatt 2040  
Db 1981 gaaactgtgacttctacttctctgtgtgactgttcatctcatctccagcatcatctgacaatt 2040  
QY 2041 tatctgagtaactatactgcagagacacagagacaaatgtgtgagcaaaagctacactgc 2100  
Db 2041 tatctgagtaactatactgcagagacacagagacaaatgtgtgagcaaaagctacactgc 2100  
QY 2101 cctaaccttctgagaggtgagcaagtcttctcatctgagagacgcgcgcgcgcgcgcgcgcgcgc 2160  
Db 2101 cctaaccttctgagaggtgagcaagtcttctcatctgagagacgcgcgcgcgcgcgcgcgcgcgc 2160  
QY 2161 gccaactttaaaccagtgctgaaagaaagaaataaaccacactctgagaatctgtgcgc 2220  
Db 2161 gccaactttaaaccagtgctgaaagaaagaaataaaccacactctgagaatctgtgcgc 2220  
QY 2221 agcatctccttaaacaagcacaactcctctagcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 2280  
Db 2221 agcatctccttaaacaagcacaactcctctagcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 2280  
QY 2281 ccccccagagcagatcttccaagccttccctccatcagtcacaagcgtgcagcgtgcgc 2340  
Db 2281 ccccccagagcagatcttccaagccttccctccatcagtcacaagcgtgcagcgtgcgc 2340  
QY 2341 gactcgcctccgcgtgaaatctgtctgtgcatctgagctgagagactcgtgctcagagct 2400  
Db 2341 gactcgcctccgcgtgaaatctgtctgtgcatctgagctgagagactcgtgctcagagct 2400

QY 2401 ccagaaagaaatggagagggaaactagtcuaacgagaaatctggaaggagacagtgcttc 2460  
Db 2401 ccagaaagaaatggagagggaaactagtcuaacgagaaatctggaaggagagacagtgcttc 2460  
QY 2461 ctcaagagaaaggggctccacagctcagagaaatctcagagaggtgagagctcagagag 2520  
Db 2461 ctcaagagaaaggggctccacagctcagagaaatctcagagaggtgagagctcagagag 2520  
QY 2521 tgggagagcttggggcttgaaggggtgctgaaaggcaggaaggttaaaaggcagagcgtgaa 2580  
Db 2521 tgggagagcttggggcttgaaggggtgctgaaaggcaggaaggttaaaaggcagagcgtgaa 2580  
QY 2581 gctgcccagatgttcaagtgtgttctcaagggcgcggaggttccctgtctcctgtgagc 2640  
Db 2581 gctgcccagatgttcaagtgtgttctcaagggcgcggaggttccctgtctcctgtgagc 2640  
QY 2641 cttttatcttctcctgtcttgaagagaaagactataatcattgaaggagatgcagtttc 2700  
Db 2641 cttttatcttctcctgtcttgaagagaaagactataatcattgaaggagatgcagtttc 2700  
QY 2701 ataaagtcagctgtttaaattccagaggtgtgtgcatggtttctctcaaggagcctttat 2760  
Db 2701 ataaagtcagctgtttaaattccagaggtgtgtgcatggtttctctcaaggagcctttat 2760  
QY 2761 ttaaaggaaataaaggagagcgtcatctccagagcgtttaaattcaagaaagagtgag 2820  
Db 2761 ttaaaggaaataaaggagagcgtcatctccagagcgtttaaattcaagaaagagtgag 2820  
QY 2821 tggagctcttctcttcaatgtctctcttggcaactcaacagccctgtgtgagcttgctta 2880  
Db 2821 tggagctcttctcttcaatgtctctcttggcaactcaacagccctgtgtgagcttgctta 2880  
QY 2881 tgaagaacggtcgaagaacacttgaatcagaagagactggtttctctctctgttcagct 2940  
Db 2881 tgaagaacggtcgaagaacacttgaatcagaagagactggtttctctctctgttcagct 2940  
QY 2941 ggttggctgttgcagccgttggcagagtgctctctctcctccttgggcaatgctctctgtc 3000  
Db 2941 ggttggctgttgcagccgttggcagagtgctctctctcctccttgggcaatgctctctgtc 3000  
QY 3001 ataaagaccccttgcaactctcgtgtctgtgtgaacacttccctgtgattctctgtgaggg 3060  
Db 3001 ataaagaccccttgcaactctcgtgtctgtgtgaacacttccctgtgattctctgtgaggg 3060  
QY 3061 ggaagtctgagagggagagagcagagctggaagcagctgagccacaggggaggtgaggg 3120  
Db 3061 ggaagtctgagagggagagagcagagctggaagcagctgagccacaggggaggtgaggg 3120  
QY 3121 ggaaggaagcagcagagagctgtgtgtctcaatcagctcctcaatgatacgttcaagctc 3180  
Db 3121 ggaaggaagcagcagagagctgtgtgtctcaatcagctcctcaatgatacgttcaagctc 3180  
QY 3181 ccggagccggagccacaatgtctcaggaaggtcacaatgaaacccaagcacaatttctct 3240  
Db 3181 ccggagccggagccacaatgtctcaggaaggtcacaatgaaacccaagcacaatttctct 3240  
QY 3241 tccctaagcatagacaatggaacttgcataataccaaaagatatgagagacttaactgtt 3300  
Db 3241 tccctaagcatagacaatggaacttgcataataccaaaagatatgagagacttaactgtt 3300  
QY 3301 ggttagcttctgtctgtcatctcaaaaacttggccagagcagtgagaaatgccaagatgt 3360  
Db 3301 ggttagcttctgtctgtcatctcaaaaacttggccagagcagtgagaaatgccaagatgt 3360  
QY 3361 ttaaaacttttcaacccctgacagcacccacagcagctcagctgactgtgtgacagcag 3420  
Db 3361 ttaaaacttttcaacccctgacagcacccacagcagctcagctgactgtgtgacagcag 3420  
QY 3421 agtgacctgacagcagggagagaaagaaagaaagagagatgagtgatgagcaagaag 3480  
Db 3421 agtgacctgacagcagggagagaaagaaagaaagagagatgagtgatgagcaagaag 3480



QY 3481 acagatcatcaagggcagctgggaattgacacagagatlatagttccagctgacctg 3540  
|||||  
Db 3481 acagatcatcaagggcagctgggaattgacacagagatlatagttccagctgacctg 3540  
QY 3541 gctctagaggcagggcctatactgctggggggaanaaatcagttcaagggaagctcgagga 3600  
|||||  
Db 3541 gctctagaggcagggcctatactgctggggggaanaaatcagttcaagggaagctcgagga 3600  
QY 3601 ccctgattcttaataataataatttcccttaacaagctgagtaattctctgagcaagtcacaag 3660  
|||||  
Db 3601 ccctgattcttaataataataatttcccttaacaagctgagtaattctctgagcaagtcacaag 3660  
QY 3661 gtaagtaactgggcctgtaagaattactgaagttcccttattaggaaaccttttctcgt 3720  
|||||  
Db 3661 gtaagtaactgggcctgtaagaattactgaagttcccttattaggaaaccttttctcgt 3720  
QY 3721 ggaagctagcagcacagaggccaaacctgtctcttcttaacaggaagaaacatctctaagag 3780  
|||||  
Db 3721 ggaagctagcagcacagaggccaaacctgtctcttcttaacaggaagaaacatctctaagag 3780  
QY 3781 taagagccaaacagatctcaagcctagctctgctgactatactgattgctttctgaaaat 3840  
|||||  
Db 3781 taagagccaaacagatctcaagcctagctctgctgactatactgattgctttctgaaaat 3840  
QY 3841 catctcagcgaactgttactactctgattcagaaatlgagactagaccttctgtgctagctg 3900  
|||||  
Db 3841 catctcagcgaactgttactactctgattcagaaatlgagactagaccttctgtgctagctg 3900  
QY 3901 taacaaacaaacccagctgtaaaatgctctcaagctcaagcttaaacctgcagaaacaaacaa 3960  
|||||  
Db 3901 taacaaacaaacccagctgtaaaatgctctcaagctcaagcttaaacctgcagaaacaaacaa 3960  
QY 3961 agaatagaattctcttaagagcaaacctgcttctcccaacatctgagagtgagctctgcagggc 4020  
|||||  
Db 3961 agaatagaattctcttaagagcaaacctgcttctcccaacatctgagagtgagctctgcagggc 4020  
QY 4021 agcttggaatacttaactccaagaatctgaacactgctgtgtgtaattacaacataaagt 4080  
|||||  
Db 4021 agcttggaatacttaactccaagaatctgaacactgctgtgtgtaattacaacataaagt 4080  
QY 4081 tgcctcaaaagcaatcatbattccaagtctgcaagttaagttactctgcagagcttctgtatat 4140  
|||||  
Db 4081 tgcctcaaaagcaatcatbattccaagtctgcaagttaagttactctgcagagcttctgtatat 4140  
QY 4141 ttattgctatctgcacattgcttcttcttcttcttcttcttcttcttcttcttcttcttcttctt 4200  
|||||  
Db 4141 ttattgctatctgcacattgcttcttcttcttcttcttcttcttcttcttcttcttcttcttctt 4200  
QY 4201 ggaattatcaacctcaagctccagaaagcctgtggaattcgaaatcgaggaanaaatctacattc 4260  
|||||  
Db 4201 ggaattatcaacctcaagctccagaaagcctgtggaattcgaaatcgaggaanaaatctacattc 4260  
QY 4261 tgccttcaacacctctcaactaaattcaacatttatctcaacttggaatlagagcataaa 4320  
|||||  
Db 4261 tgccttcaacacctctcaactaaattcaacatttatctcaacttggaatlagagcataaa 4320  
QY 4321 ctcaaaagtggaatacaacagctcctgtgattctgtcaatcaacaatagaaatcaacagactc 4380  
|||||  
Db 4321 ctcaaaagtggaatacaacagctcctgtgattctgtcaatcaacaatagaaatcaacagactc 4380  
QY 4381 cttaactatactagagctgtgtgcagatacgtctgtaagtgaaatatttactcaaaaata 4440  
|||||  
Db 4381 cttaactatactagagctgtgtgcagatacgtctgtaagtgaaatatttactcaaaaata 4440  
QY 4441 ctctgaaatctagacctcctgtctggaactctgtcttcttaacatactaaataaacatgctttaa 4500  
|||||  
Db 4441 ctctgaaatctagacctcctgtctggaactctgtcttcttaacatactaaataaacatgctttaa 4500  
QY 4501 attcttgataatttgataatactatctcatctatcatctgttccctctgtaacctataattc 4560  
|||||  
Db 4501 attcttgataatttgataatactatctcatctatcatctgttccctctgtaacctataattc 4560  
QY 4561 atatatctgaaanaacacttctctgagaagagctcccccagattccaccaatlgaggtctctg 4620  
|||||

Db 4561 atatatctgaaanaacacttctctgagaagagctcccccagattccaccaatlgaggtctctg 4620  
|||||  
QY 4621 catctcaacacacagagtaagaactgatttagaggctaaactgacatctgtctgcctgaga 4680  
|||||  
Db 4621 catctcaacacacagagtaagaactgatttagaggctaaactgacatctgtctgcctgaga 4680  
QY 4681 tgcagactgaaattagaagaattctccaaagataacacagttgttttaagctagggtg 4740  
|||||  
Db 4681 tgcagactgaaattagaagaattctccaaagataacacagttgttttaagctagggtg 4740  
QY 4741 agggggaacatctgcgctctataaggaatctctccctgagcctgtgtaagctgtctc 4800  
|||||  
Db 4741 agggggaacatctgcgctctataaggaatctctccctgagcctgtgtaagctgtctc 4800  
QY 4801 ctctgtctctgctgctgctgtatttctctctgctcctgctacagttcttaaggactgtct 4860  
|||||  
Db 4801 ctctgtctctgctgctgctgtatttctctctgctcctgctacagttcttaaggactgtct 4860  
QY 4861 ggaattccagttctcttagatactgctctgagcagctgacagttctccaatgagttgcagag 4920  
|||||  
Db 4861 ggaattccagttctcttagatactgctctgagcagctgacagttctccaatgagttgcagag 4920  
QY 4921 tgaattggaataataaactagaataataatccttgttgaatacagcaacagtaattcctg 4980  
|||||  
Db 4921 tgaattggaataataaactagaataataatccttgttgaatacagcaacagtaattcctg 4980  
QY 4981 tgaagtgctgtacagctgctgtctgtctgtctgtctgtctgtctgtctgtctgtctgtctgt 5040  
|||||  
Db 4981 tgaagtgctgtacagctgctgtctgtctgtctgtctgtctgtctgtctgtctgtctgtctgt 5040  
QY 5041 taggaactatacttgagggtataggtgtcaataatgggaatgttcttttaaaaagaatactc 5100  
|||||  
Db 5041 taggaactatacttgagggtataggtgtcaataatgggaatgttcttttaaaaagaatactc 5100  
QY 5101 caaacagactctctgaaagttatttctcaagaatctctctgacagcgtgaaagcaacccc 5160  
|||||  
Db 5101 caaacagactctctgaaagttatttctcaagaatctctctgacagcgtgaaagcaacccc 5160  
QY 5161 cctgtgcaagcccaacccagcctcaagctgagcactctgtctctcccaatgaaggctg 5220  
|||||  
Db 5161 cctgtgcaagcccaacccagcctcaagctgagcactctgtctctcccaatgaaggctg 5220  
QY 5221 gctccccaatataataacactctcttgagactctggagctggagcagcaaggccacccatc 5280  
|||||  
Db 5221 gctccccaatataataacactctcttgagactctggagctggagcagcaaggccacccatc 5280  
QY 5281 caggaactctcagagacagcagagcttctccagaggaagccctcaacaaagcctctgcaatga 5340  
|||||  
Db 5281 caggaactctcagagacagcagagcttctccagaggaagccctcaacaaagcctctgcaatga 5340  
QY 5341 ggttctctgtgcaagctgtctgcaagcttctggcctgagaatgccaagctgtctcagagctgtc 5400  
|||||  
Db 5341 ggttctctgtgcaagctgtctgcaagcttctggcctgagaatgccaagctgtctcagagctgtc 5400  
QY 5401 ttctggcctgctgctgtgtgggagtgtgggggccaaggaacagctccaagctcaggaagccaatg 5460  
|||||  
Db 5401 ttctggcctgctgctgtgtgggagtgtgggggccaaggaacagctccaagctcaggaagccaatg 5460  
QY 5461 accaagtgggcagatgcaagtaatacctcaagtgtggcagagcccaatgaatccaagctcc 5520  
|||||  
Db 5461 accaagtgggcagatgcaagtaatacctcaagtgtggcagagcccaatgaatccaagctcc 5520  
QY 5521 cagagcagagccagagcactgtcagctcaatcaataactcaagagagacagcagcccaac 5580  
|||||  
Db 5521 cagagcagagccagagcactgtcagctcaatcaataactcaagagagacagcagcccaac 5580  
QY 5581 gcttagacctggaggccaacaaagctcgactcagctcctcttgagagagcctctcccaacat 5640  
|||||  
Db 5581 gcttagacctggaggccaacaaagctcgactcagctcctcttgagagagcctctcccaacat 5640  
QY 5641 tgaacctgagcagagctcagagcccccagaggaacccaagagagggtgtagaggagagctg 5700  
|||||

Db 5641 tgaaccttgaccaggtctgcagagcgcacagagaccagagagggctgcagagggagctgg 5700  
Qy 5701 gcaaccttgagcgagcgagcgagaccagctggaaccacaacagagagttggaagctggct 5760  
Db 5701 gcaaccttgagcgagcgagcgagaccagctggaaccacaacagagagttggaagctggct 5760  
Qy 5761 acaagcaacctctcccgagacaaagtcagttctcgagaggaagaaagacgactaagggcaag 5820  
Db 5761 acaagcaacctctcccgagacaaagtcagttctcgagaggaagaaagacgactaagggcaag 5820  
Qy 5821 aaaaatgaatctgagcagagaggtctggaagacagcagcagagagagtgcaaggtctgga 5880  
Db 5821 aaaaatgaatctgagcagagaggtctggaagacagcagcagagagagtgcaaggtctgga 5880  
Qy 5881 ggggcccagtgctcccgagaccccgagacacgtctcgaggtctgcaacaggtctcagagaa 5940  
Db 5881 ggggcccagtgctcccgagaccccgagacacgtctcgaggtctgcaacaggtctcagagaa 5940  
Qy 5941 gtaagaaatgcagagtgaggggagactctgagttcagcagagtgataggtctcgtagtgacctg 6000  
Db 5941 gtaagaaatgcagagtgaggggagactctgagttcagcagagtgataggtctcgtagtgacctg 6000  
Qy 6001 ctacagagcgctccagagctccctgctctctctctctctctctctctctctctctctctctct 6060  
Db 6001 ctacagagcgctccagagctccctgctctctctctctctctctctctctctctctctctctct 6060  
Qy 6061 agatgaatgaaggaagacacagatcacctctcaagatctactagtaattagctctcag 6120  
Db 6061 agatgaatgaaggaagacacagatcacctctcaagatctactagtaattagctctcag 6120  
Qy 6121 agctcattagatagtggtctcagagttctgtgccccccagtgag 6169  
Db 6121 agctcattagatagtggtctcagagttctgtgccccccagtgag 6169

RESULT 3  
US-09-306-828-3  
: Sequence 3. Application US/09306828  
: GENERAL INFORMATION:  
: APPLICANT: Nguyen, Thai D.  
: APPLICANT: Polansky, Jon R.  
: APPLICANT: Chen, Pu  
: APPLICANT: Chen, Hua  
: TITLE OF INVENTION: Nucleic Acids, Kits, And Methods For The Diagnosis, Prognosis And  
: CURRENT APPLICATION NUMBER: US/09/306,828  
: EARLIER FILING DATE: 1999-05-07  
: EARLIER APPLICATION NUMBER: US 09/227,881  
: NUMBER OF SEQ ID NOS: 38  
: SOFTWARE: Microsoft Word 97  
: SEQ ID NO 3  
: LENGTH: 6169  
: TYPE: DNA  
: ORGANISM: Homo sapiens  
US-09-306-828-3

Query Match 100.0%; Score 6169; DB 17; Length 6169;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 6169; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 attctgttcagtcttaccacagagctatcatatgaatgaatgaataacaaatgtgaaag 60  
Db 1 attctgttcagtcttaccacagagctatcatatgaatgaatgaataacaaatgtgaaag 60  
Qy 61 tccataaaactgtatagctccatctcgatgtatgtctcttgagaggaatgataaagataa 120  
Db 61 tccataaaactgtatagctccatctcgatgtatgtctcttgagaggaatgataaagataa 120  
Qy 121 ggaagaaagagatcatcagcttagcagaagtgtccaggtgtgtctgtctctattcttag 180  
Db 121 ggaagaaagagatcatcagcttagcagaagtgtccaggtgtgtctgtctctattcttag 180

Qy 181 cagatgtgtctctcgacagaagctatctctcaggaataacatcacatcatgtgtaaac 240  
Db 181 cagatgtgtctctcgacagaagctatctctcaggaataacatcacatcatgtgtaaac 240  
Qy 241 catcaaaacagagatgaagaaacagagatgagatgtgagatgtcccaagggaataatg 300  
Db 241 catcaaaacagagatgaagaaacagagatgagatgtgagatgtcccaagggaataatg 300  
Qy 301 gaggcacaataatgataaataaacttccctctgtttttaaattcttcaggaaataatg 360  
Db 301 gaggcacaataatgataaataaacttccctctgtttttaaattcttcaggaaataatg 360  
Qy 361 atgagagcccaaatcaatgaataagaaacagctcagaaataaagatgtttccaatgg 420  
Db 361 atgagagcccaaatcaatgaataagaaacagctcagaaataaagatgtttccaatgg 420  
Qy 421 taatgaatgtctgtctctcgagagagactccatgttgagctgtgagggaaatgggaa 480  
Db 421 taatgaatgtctgtctctcgagagagactccatgttgagctgtgagggaaatgggaa 480  
Qy 481 aaacgtcaaaagcatgactctgatacagaacctcaagtgatattatcttaaaaaacagat 540  
Db 481 aaacgtcaaaagcatgactctgatacagaacctcaagtgatattatcttaaaaaacagat 540  
Qy 541 ggcatactcttgaggagagcaagtccagaggtcatgtgtgcaagagacataacaataac 600  
Db 541 ggcatactcttgaggagagcaagtccagaggtcatgtgtgcaagagacataacaataac 600  
Qy 601 agcaaaaatcaaaatctccgcaaatgcaagagaaatgaggagacgggaaacattcataac 660  
Db 601 agcaaaaatcaaaatctccgcaaatgcaagagaaatgaggagacgggaaacattcataac 660  
Qy 661 agtgatagagcttgacacatgtctgcacaacacctcccgctctatcacagagaaacaaa 720  
Db 661 agtgatagagcttgacacatgtctgcacaacacctcccgctctatcacagagaaacaaa 720  
Qy 721 atgacttggtcagctagccttgacattcaaggaataatgaaacatgagcaaaacaaa 780  
Db 721 atgacttggtcagctagccttgacattcaaggaataatgaaacatgagcaaaacaaa 780  
Qy 781 gacatgttaaaagggaacagaaacatttgagctctcaagaagagatgccccctacga 840  
Db 781 gacatgttaaaagggaacagaaacatttgagctctcaagaagagatgccccctacga 840  
Qy 841 ggaaccttgagagcatctgctcttagaagagccagtttctcttaaggaatcttaagaac 900  
Db 841 ggaaccttgagagcatctgctcttagaagagccagtttctcttaaggaatcttaagaac 900  
Qy 901 tgaagaatcatgaattttaaacatttaagataaaacaaatagcgtgcaataacag 960  
Db 901 tgaagaatcatgaattttaaacatttaagataaaacaaatagcgtgcaataacag 960  
Qy 961 tttaagacatgggtcccaattttaaagtcagagcatagaaagataagtgctccagctcc 1020  
Db 961 tttaagacatgggtcccaattttaaagtcagagcatagaaagataagtgctccagctcc 1020  
Qy 1021 ggaatagtgcaagaatcatatgaataacactgtgtcccaatcctaacttttcagaatgac 1080  
Db 1021 ggaatagtgcaagaatcatatgaataacactgtgtcccaatcctaacttttcagaatgac 1080  
Qy 1081 tgtcatagccctcacacacaggtcgatgtctgagcctacaacacacatctacaaccaa 1140  
Db 1081 tgtcatagccctcacacacaggtcgatgtctgagcctacaacacacatctacaaccaa 1140  
Qy 1141 gtgctcacaacatttgttaacgtgtcatctcagtaggtcccatlaaaatgccaactcccc 1200  
Db 1141 gtgctcacaacatttgttaacgtgtcatctcagtaggtcccatlaaaatgccaactcccc 1200  
Qy 1201 tgtgagagcccatccgctccacagagagctcccaactcttaacttctgacacagatgt 1260  
Db 1201 tgtgagagcccatccgctccacagagagctcccaactcttaacttctgacacagatgt 1260  
Qy 1261 taacagcagaagctccgtgagaggtgagggctgtgtcttaacactaactgtatgtctaac 1320



D	1261	taacagccagaaagcccgctgagaggtgagaggtctgtgtcttaacccaactctgtatctctaac	1320
Q	1321	acctgagctcaactgcaaacactctgtccccaaggtcttaacgaactctctctgtctcaagctctcc	1380
D	1321	acctgagctcaactgcaaacactctgtccccaaggtcttaacgaactctctctgtctcaagctctcc	1380
Q	1381	cgagctagctgagactacagagcgcaagcccggtctaaattctgtatgttagtagagatggg	1440
D	1381	cgagctagctgagactacagagcgcaagcccggtctaaattctgtatgttagtagagatggg	1440
Q	1441	gtttcaacacatctagcccggtctgtgtctgaaactctctgaacccaaggtgtatccaacacactc	1500
D	1441	gtttcaacacatctagcccggtctgtgtctgaaactctctgaacccaaggtgtatccaacacactc	1500
Q	1501	agcctcccaaaagctgctgagatctacagagcatgagctacacgcgcgcgcgcgcgcgcgcgcgc	1560
D	1501	agcctcccaaaagctgctgagatctacagagcatgagctacacgcgcgcgcgcgcgcgcgcgcgc	1560
Q	1561	ctaaataaggaataaacctgtaattgttactaaaccaagggaaacagacaaagctgtga	1620
D	1561	ctaaataaggaataaacctgtaattgttactaaaccaagggaaacagacaaagctgtga	1620
Q	1621	taatttcaaggaattctctgaggttgagggaattgtgtccatgagctgtgcctgtgcttcccaag	1680
D	1621	taatttcaaggaattctctgaggttgagggaattgtgtccatgagctgtgcctgtgcttcccaag	1680
Q	1681	caatggtctcatcaactctctccctcaactcccatcttcacagctgaagcttaacattttat	1740
D	1681	caatggtctcatcaactctctccctcaactcccatcttcacagctgaagcttaacattttat	1740
Q	1741	caaccaagtcttctgtgtgaagcctccacaactgttactgtaaataagagatacaataaactag	1800
D	1741	caaccaagtcttctgtgtgaagcctccacaactgttactgtaaataagagatacaataaactag	1800
Q	1801	ttccaattgggggccaactcgtgtgtgtatagggggagagagacatacccccgagctcct	1860
D	1801	ttccaattgggggccaactcgtgtgtgtatagggggagagagacatacccccgagagctcct	1860
Q	1861	tgaagcccccgagcaaggtctccctctccagctgtggagggagccctgtgaagcaacccgggtccc	1920
D	1861	tgaagcccccgagcaaggtctccctctccagctgtggagggagccctgtgaagcaacccgggtccc	1920
Q	1921	tgggtgtctctgagcaaacctgccaagcccgctgccaactgtgttttgttactaactctctag	1980
D	1921	tgggtgtctctgagcaaacctgccaagcccgctgccaactgtgttttgttactaactctctag	1980
Q	1981	gaactgtgtctcttaattctctgtgtgtactcgttcaatccaagggcatctcatgtgaact	2040
D	1981	gaactgtgtctcttaattctctgtgtgtactcgttcaatccaagggcatctcatgtgaact	2040
Q	2041	catctgagaaactatctctgccaagacacagagaaatgtggagcaagagctacacgct	2100
D	2041	catctgagaaactatctctgccaagacacagagaaatgtggagcaagagctacacgct	2100
Q	2101	ctcaactctcgtgtgaggtgtacagttctctcatgtgaagagcgtgcgaagaaataataatagcca	2160
D	2101	ctcaactctcgtgtgaggtgtacagttctctcatgtgaagagcgtgcgaagaaataataatagcca	2160
Q	2161	gccaacttaaacccaagctgctgaagaagaagaataaacacaactctctgaagaattgtgcgc	2220
D	2161	gccaacttaaacccaagctgctgaagaagaagaataaacacaactctctgaagaattgtgcgc	2220
Q	2221	agcatccctttaaagagccaactccctctagcgccctgtcgtctcatctcgtgtccggagg	2280
D	2221	agcatccctttaaagagagccaactccctctagcgccctgtcgtctcatctcgtgtccggagg	2280
Q	2281	cccccaagcccgagctctccaagcctccctctccaactcagctcagcgctgcagcgctgcgcct	2340
D	2281	cccccaagcccgagctctccaagcctccctctccaactcagctcagcgctgcagcgctgcgcct	2340
Q	2341	gctctgcttcccgtaaatcgtctctgtgtcatctgaagctggaagactcctgtgtccaggct	2400
D	2341	gctctgcttcccgtaaatcgtctctgtgtcatctgaagctggaagactcctgtgtccaggct	2400
D	2341	gctctgcttcccgtaaatcgtctctgtgtcatctgaagctggaagactcctgtgtccaggct	2400
Q	2401	ccagaaagaaatgtgagaggggaaactagctcaacggaagatctgagagggagacgtcttc	2460
D	2401	ccagaaagaaatgtgagaggggaaactagctcaacggaagatctgagagggagacgtcttc	2460
Q	2461	ctcagagggaaaggggctcccaagctccaagggaaattccaggaaggtgtggagactgtcagggag	2520
D	2461	ctcagagggaaaggggctcccaagctccaagggaaattcccaaggaaggtgtggagactgtcagggag	2520
Q	2521	tgggagcgtctggggcgtgtgagcgtgtctgaagaagcgaggaaggctgaagaagcgcaagctgaa	2580
D	2521	tgggagcgtctggggcgtgtgagcgtgtctgaagaagcgaggaaggctgaagaagcgcaagctgaa	2580
Q	2581	gctgcaccagatgttcaaggtgtgttcaacgggctctgggaatttcttcgtctctctctgtagc	2640
D	2581	gctgcaccagatgttcaaggtgtgttcaacgggctctgggaatttcttcgtctctctctgtagc	2640
Q	2641	cttttatacttctctctgtctctgagagagaagatctcatatcaatgaaggtatgcagtttc	2700
D	2641	cttttatacttctctctgtctctgagagagaagatctcatatcaatgaaggtatgcagtttc	2700
Q	2701	ataaagctcagctgttaaaatctccaggggtgtcatgtgttcttcctcacaagagcccttat	2760
D	2701	ataaagctcagctgttaaaatctccaggggtgtcatgtgttcttcctcacaagagcccttat	2760
Q	2761	ttaatgagaaataaagagagcgagcccatcttccaaagccggttaattcacaggaagatgac	2820
D	2761	ttaatgagaaataaagagagcgagcccatcttccaaagccggttaattcacaggaagatgac	2820
Q	2821	tggagcttctctctcatgtctctctgtggcaactacacagccctgtgtgtgaactgtgctta	2880
D	2821	tggagcttctctctcatgtctctctgtggcaactacacagccctgtgtgtgaactgtgctta	2880
Q	2881	tgcagaagcgtctcgaaaacctgtgaatccagggagacccgtttcttctctgtgtgtccatt	2940
D	2881	tgcagaagcgtctcgaaaacctgtgaatccagggagacccgtttcttctctgtgtgtccatt	2940
Q	2941	ggttgagctgtgagacgctgtggacaagtgtctccctctccctgtggcatactctctgtc	3000
D	2941	ggttgagctgtgagacgctgtggacaagtgtctccctctccctgtggcatactctctgtc	3000
Q	3001	atbaagaccctctgacgtctcgtgtctctgtgaacaacttccctctgtgtgtgtgtgtgtgtgt	3060
D	3001	atbaagaccctctgacgtctcgt	3060
Q	3061	ggaatctgaagaggggaaagagagcagagctgtgagcagctcgagccaagggaggtgtgaggg	3120
D	3061	ggaatctgaagaggggaaagagagcagagctgtgagcagctcgagccaagggaggtgtgaggg	3120
Q	3121	ggaacagagagcgagggcagaagcgtgtgtctccatcaagctccatcaagctcagctcagatc	3180
D	3121	ggaacagagagcgagggcagaagcgtgtgtctccatcaagctccatcaagctcagctcagatc	3180
Q	3181	caggaaccagagcccaatgtctctc	3240
D	3181	caggaaccagagcccaatgtctctc	3240
Q	3241	tcocctaagcatagacaatgtgcatcttgccaataacccaagaagatgcagagactaagctgc	3300
D	3241	tcocctaagcatagacaatgtgcatcttgccaataacccaagaagatgcagagactaagctgc	3300
Q	3301	gttagcttctgtcgtgcatctcaaaaactgggacagagagaggtggaataatgcacagatgtg	3360
D	3301	gttagcttctgtcgtgcatctcaaaaactgggacagagagaggtggaataatgcacagatgtg	3360
Q	3361	ttaaaacttctcaagccttgacagcccaacagcgagctcagctcagctgtcgtacagcaag	3420
D	3361	ttaaaacttctcaagccttgacagcccaacagcgagctcagctcagctgtcgtacagcaag	3420
Q	3421	agtgcactgcagcgaggggagagaaagaaagagaggtatgtatgtagcaagaag	3480
D	3421	agtgcactgcagcgagggagagaaagaaagagaggtatgtatgtagcaagaag	3480

OY 3481 acagatcatcaaggcagctgggaattgaccacaggatatagtatccacgtgactctgg 3540  
|||||  
Db 3481 acagatcatcaaggcagctgggaattgaccacaggatatagtatccacgtgactctgg 3540  
OY 3541 gtctcagagcagggcctatactgctgggggaaaaaaatcagctcaagggaagctgggaga 3600  
|||||  
Db 3541 gtctcagagcagggcctatactgctgggggaaaaaaatcagctcaagggaagctgggaga 3600  
OY 3601 ccggaattcctaatactaatcttctcttaacagctgaataatctcagcaagctcaagaag 3660  
|||||  
Db 3601 ccggaattcctaatactaatcttctctcttaacagctgaataatctcagcaagctcaagaag 3660  
OY 3661 gtagtaactgaagctgtgaagattactgaattctccttatagaactcttctctctgtc 3720  
|||||  
Db 3661 gtagtaactgaagctgtgaagattactgaattctccttatagaactcttctctctgtc 3720  
OY 3721 ggaagtacgacgacaaggacatcccgcttctcttaacaggaagaaaaaatctcctaagag 3780  
|||||  
Db 3721 ggaagtacgacgacaaggacatcccgcttctcttaacaggaagaaaaaatctcctaagag 3780  
OY 3781 taagcccaaacagattcaagcctaagctctcgtcgaactatagtatggcttcttgaaaaat 3840  
|||||  
Db 3781 taagcccaaacagattcaagcctaagctctcgtcgaactatagtatggcttcttgaaaaat 3840  
OY 3841 catcttcgacgtgttactctcgtatcagaaaaaatgagactagtaaccttcttgacagctg 3900  
|||||  
Db 3841 catcttcgacgtgttactctcgtatcagaaaaaatgagactagtaaccttcttgacagctg 3900  
OY 3901 taacaaacacccacagctgttaaatgtctcaagcttcaagctcaactcgaagacaaatcaca 3960  
|||||  
Db 3901 taacaaacacccacagctgttaaatgtctcaagcttcaagctcaactcgaagacaaatcaca 3960  
OY 3961 agaatagaatctcttaagacaaactgtgtctccacaactcgaagctgaagctcgcagagc 4020  
|||||  
Db 3961 agaatagaatctcttaagacaaactgtgtctccacaactcgaagctgaagctcgcagagc 4020  
OY 4021 agcttggaatatcttacttcaagaattatgacagctgtgtgtgtatatacaacaataaagt 4080  
|||||  
Db 4021 agcttggaatatcttacttcaagaattatgacagctgtgtgtgtatatacaacaataaagt 4080  
OY 4081 tgcctcaaggcacaactaattctcaagctgaagcttaactctcgaagcttctgtatcat 4140  
|||||  
Db 4081 tgcctcaaggcacaactaattctcaagctgaagcttaactctcgaagcttctgtatcat 4140  
OY 4141 tcaatgtgcatctgcgaacttgccttctgtcttctcctcttgagcttcaatgtlaaagcag 4200  
|||||  
Db 4141 tcaatgtgcatctgcgaacttgccttctgtcttctcctcttgagcttcaatgtlaaagcag 4200  
OY 4201 ggaattataacctacagctcagaagaagcctgtgaatttgaaatgmgaaaaaatcaacttct 4260  
|||||  
Db 4201 ggaattataacctacagctcagaagaagcctgtgaatttgaaatgmgaaaaaatcaacttct 4260  
OY 4261 tgccttcaacacacttcaactaaatctaaacttcaatccatcgcgaatagagccaataa 4320  
|||||  
Db 4261 tgccttcaacacacttcaactaaatctaaacttcaatccatcgcgaatagagccaataa 4320  
OY 4321 cccaagctggtlaatacagtaacctgtgactctgtcaactcaacaaatagaaatccacagcat 4380  
|||||  
Db 4321 cccaagctggtlaatacagtaacctgtgactctgtcaactcaacaaatagaaatccacagcat 4380  
OY 4381 tcaataataatacagctgttcgaatagctgtgaaatgaaatcttaatactcaaaacta 4440  
|||||  
Db 4381 tcaataataatacagctgttcgaatagctgtgaaatgaaatcttaatactcaaaacta 4440  
OY 4441 ccttgaaatcagaacctcgcgtggaactcgttcttaacataatgaataaacaatgtcttaa 4500  
|||||  
Db 4441 ccttgaaatcagaacctcgcgtggaactcgttcttaacataatgaataaacaatgtcttaa 4500  
OY 4501 attctgataattctgataatacataatctatcaatctgttctccttgttaactabatactt 4560  
|||||  
Db 4501 attctgataattctgataatacataatctatcaatctgttctccttgttaactabatactt 4560

OY 4561 atataattgaaaaaactcttcttgagaagagctccccaagatttccacaatgaggtctctgg 4620  
|||||  
Db 4561 atataattgaaaaaactcttcttgagaagagctccccaagatttccacaatgaggtctctgg 4620  
OY 4621 catgcacacacacagagtaaaactgtattagagctcaaaccttacaattgctgcctaga 4680  
|||||  
Db 4621 catgcacacacacagagtaaaactgtattagagctcaaaccttacaattgctgcctaga 4680  
OY 4681 tgcagaactgaataatgaagaagcttcccaagaagatacacaactgtgttcttaagctcagggctg 4740  
|||||  
Db 4681 tgcagaactgaataatgaagaagcttcccaagaagatacacaactgtgttcttaagctcagggctg 4740  
OY 4741 aggggggaaatctgcgcctctcaagaagatgctctcccttgagcctgtaggtgtctgc 4800  
|||||  
Db 4741 aggggggaaatctgcgcctctctcaagaagatgctctcccttgagcctgtaggtgtctgc 4800  
OY 4801 ctgtgtctcgcgcgtgtgtattcttctctgtccctcgcagctgaagcttaaggagctgttct 4860  
|||||  
Db 4801 ctgtgtctcgcgcgtgtgtattcttctctgtccctcgcagctgaagcttaaggagctgttct 4860  
OY 4861 ggaatccagcttccatgaactagctgcctgcgcagctgcaggttctcacaatgaagtctgcagag 4920  
|||||  
Db 4861 ggaatccagcttccatgaactagctgcctgcgcagctgcaggttctcacaatgaagtctgcagag 4920  
OY 4921 tgaatgaaatataaactagaataatatactcctgttgaaatcagaacacacagtagtccctgg 4980  
|||||  
Db 4921 tgaatgaaatataaactagaataatatactcctgttgaaatcagaacacacagtagtccctgg 4980  
OY 4981 tgaatgagctgtgaagctgt 5040  
|||||  
Db 4981 tgaatgagctgtgaagctgt 5040  
OY 5041 taagaaactaattctgggtgtatctggctgcatataatcttgagatcttcttcttaaaaaagaactc 5100  
|||||  
Db 5041 taagaaactaattctgggtgtatctgggtgtcatataatcttgagatcttcttcttaaaaaagaactc 5100  
OY 5101 caaacagactctcgggaaggtattcttcttaagaactctgtcgcagcgttgaaggcaacccc 5160  
|||||  
Db 5101 caaacagactctcgggaaggtattcttcttaagaactctgtcgcagcgttgaaggcaacccc 5160  
OY 5161 cctgtgcacagcccccacagcctcagctgtgcagcactgtcttctccccaatgaaggagctg 5220  
|||||  
Db 5161 cctgtgcacagcccccacagcctcagctgtgcagcactgtcttctccccaatgaaggagctg 5220  
OY 5221 gctccccaatataataaactctctggaagctcgggcataagacagcaagccacacatc 5280  
|||||  
Db 5221 gctccccaatataataaactctctggaagctcgggcataagacagcaagccacacatc 5280  
OY 5281 caggaacccctcagcagcagagacttccagaagaagcctcaacagcctctgcaatga 5340  
|||||  
Db 5281 caggaacccctcagcagcagagacttccagaagaagcctcaacagcctctgcaatga 5340  
OY 5341 ggtcttctctgtgacagctgtcgtgagcttctgggcttgaaatgccaagcttgcagctgtgc 5400  
|||||  
Db 5341 ggtcttctctgtgacagctgtcgtgagcttctgggcttgaaatgccaagcttgcagctgtgc 5400  
OY 5401 tctctgcctgcctgtgtgtggaatgttgggggcagaagcaactcaagctcaagaagcccaatg 5460  
|||||  
Db 5401 tctctgcctgcctgtgtgtggaatgttgggggcagaagcaactcaagctcaagaagcccaatg 5460  
OY 5461 accagagctggtcgaatgccaatcaactcagctgtggtcagctcccaatgaatccagctgccc 5520  
|||||  
Db 5461 accagagctggtcgaatgccaatcaactcagctgtggtcagctcccaatgaatccagctgccc 5520  
OY 5521 cagaagcagacagggcagctgtcagctatcccaacttaagaaggaacagcacaacccaac 5580  
|||||  
Db 5521 cagaagcagacagggcagctgtcagctatcccaacttaagaaggaacagcacaacccaac 5580  
OY 5581 gcttgaagcttggaagcccaacaaagctcgaactcagctcccttggaagagcctccccaacaa 5640  
|||||  
Db 5581 gcttgaagcttggaagcccaacaaagctcgaactcagctcccttggaagagcctccccaacaa 5640  
OY 5641 tgaacttggaacagcgtgcagagccccaaggaacccaaggaaggcgtgcagaggaagcctgg 5700

```
|||||
Db 5641 tgcaccttgacccagcgtccagagccccagagaccagggagggctgcagagggactgg 5700
Oy 5701 gcaacctgagggcgaggcgagaccagctggaaaaccaaccagagacttggagactgct 5760
Db 5701 gcaacctgagggcgaggcgagaccagctggaaaaccaaccagagacttggagactgct 5760
Oy 5761 acagcaacctctcccgagacaagtcagttctcgagaggaagaagaacgactaaggagaa 5820
Db 5761 acagcaacctctcccgagacaagtcagttctcgagaggaagaagaacgactaaggagaa 5820
Oy 5821 aaaaatgaaactctcgccagagagcttggaagaacagcagccaggaagctgcagagaa 5880
Db 5821 aaaaatgaaactctcgccagagagcttggaagaacagcagccaggaagctgcagagaa 5880
Oy 5881 ggggccaagtctccccaagaccgagacactgctcggtctgcacacagagctccagagaa 5940
Db 5881 ggggccaagtctccccaagaccgagacactgctcggtctgcacacagagctccagagaa 5940
Oy 5941 gtaagaaatgcagagatggggagactctgaatcagcaggtatagctgtagtgactg 6000
Db 5941 gtaagaaatgcagagatggggagactctgaatcagcaggtatagctgtagtgactg 6000
Oy 6001 ctacaggcgctccagagcctccctgacctctctctcctagagactgcacagctcagacaag 6060
Db 6001 ctacaggcgctccagagcctccctgacctctctctcctagagactgcacagctcagacaag 6060
Oy 6061 agatgaatgaagaagacacagatcaaccttaagatlaactaagcttgcctcgag 6120
Db 6061 agatgaatgaagaagacacagatcaaccttaagatlaactaagcttgcctcgag 6120
Oy 6121 agcttcaatagatlaagttcagagttctctgccccctccagctgag 6169
Db 6121 agcttcaatagatlaagttcagagttctctgccccctccagctgag 6169
```

```
RESULT 4
US-09-227-881-34
: Sequence 34, Application US/09227881
: GENERAL INFORMATION:
: APPLICANT: Nguyen, Thai D.
: APPLICANT: Polansky, Jon R.
: APPLICANT: Chen, Pu
: APPLICANT: Chen, Hua
: TITLE OF INVENTION: Nucleic Acids, Kits, And Methods For The Diagnosis, Prognosis And
: CURRENT APPLICATION NUMBER: US/09/227,881
: EARLIER FILING DATE: 1999-01-11
: EARLIER APPLICATION NUMBER: US 08/938,669
: NUMBER OF SEQ. ID NOS: 36
: SOFTWARE: Microsoft Word 97
: SEQ. ID NO 34
: LENGTH: 5271
: TYPE: DNA
: ORGANISM: Homo sapiens
US-09-227-881-34
```

```
Query Match 85.4%; Score 5271; DB 16; Length 5271;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 5271; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Oy 1 atcttctcagtttaccctcagggctattatgaatgaaatgagataaccaatgtgaag 60
Db 1 atcttctcagtttaccctcagggctattatgaatgaaatgagataaccaatgtgaag 60
Oy 61 tccataaactgataagcccacattcggaatgatagtatcttggcagaggtatgaagaatca 120
Db 61 tccataaactgataagcccacattcggaatgatagtatcttggcagaggtatgaagaatca 120
Oy 121 ggaagaaagatataccagcttagccaagtgtccagagctgtctgcacttaatttagta 180
Db 121 ggaagaaagatataccagcttagccaagtgtccagagctgtctgcacttaatttagta 180
```

```
Oy 181 cagatgttctcctgacagaagctatctctcagaaaacatcacatccaatatgttaattc 240
Db 181 cagatgttctcctgacagaagctatctctcagaaaacatcacatccaatatgttaattc 240
Oy 241 catcaaacagagatcaagaacacagaaatgagatgagacttgcacacaggaagaaatgcag 300
Db 241 catcaaacagagatcaagaacacagaaatgagatgagacttgcacacaggaagaaatgcag 300
Oy 301 gaggcacaataatgataaaaaaacttccctgttcttaattcaattcaggaaaaatg 360
Db 301 gaggcacaataatgataaaaaaacttccctgttcttaattcaattcaggaaaaatg 360
Oy 361 atgagagcccaaatcaatgataaagaaacagctccgaaaaaagatggttccaatgtg 420
Db 361 atgagagcccaaatcaatgataaagaaacagctccgaaaaaagatggttccaatgtg 420
Oy 421 taatlaagtaattgtctccttggagaagacctccatgtgaacttgatcggaatgggaa 480
Db 421 taatlaagtaattgtctccttggagaagacctccatgtgaacttgatcggaatgggaa 480
Oy 481 aaacgtcaaaaagcatgactgatacccaagtggaattatatttaaaaaacagat 540
Db 481 aaacgtcaaaaagcatgactgatacccaagtggaattatatttaaaaaacagat 540
Oy 541 ggcatacctctggggaggaagctcaggaagtgatgttgaagaagacataacaataac 600
Db 541 ggcatacctctggggaggaagctcaggaagtgatgttgaagaagacataacaataac 600
Oy 601 agcaaaaatcaaaaatcccgcaaatgcaggaagaaatgggagctgggaaagcttccataac 660
Db 601 agcaaaaatcaaaaatcccgcaaatgcaggaagaaatgggagctgggaaagcttccataac 660
Oy 661 agtgaatgaagcagctgacacatgttcgcaaacctcccgctctataccagggacaacaaa 720
Db 661 agtgaatgaagcagctgacacatgttcgcaaacctcccgctctataccagggacaacaaa 720
Oy 721 attgacgtgggttaagccttgagcttcaaggaaatgataaatactgagaaacaaa 780
Db 721 attgacgtgggttaagccttgagcttcaaggaaatgataaatactgagaaacaaa 780
Oy 781 gacatgtttaaagagcaaccagacatgttgagccttcaaaagcagctgcccccgca 840
Db 781 gacatgtttaaagagcaaccagacatgttgagccttcaaaagcagctgcccccgca 840
Oy 841 gggaccctgagcatttgctttaggaagggcagtttcttaaggaatcttaagaanaatc 900
Db 841 gggaccctgagcatttgctttaggaagggcagtttcttaaggaatcttaagaanaatc 900
Oy 901 ttgaaagatcatgaattttaaccatttaagataaaaaaataatgtgataatcag 960
Db 901 ttgaaagatcatgaattttaaccatttaagataaaaaaataatgtgataatcag 960
Oy 961 tttagacaatggtcccaatttataaagtcagagcatacaagaagataaogtgcacagctcc 1020
Db 961 tttagacaatggtcccaatttataaagtcagagcatacaagaagataaogtgcacagctcc 1020
Oy 1021 ggaatagtcagaatcatatgaataatcacgtgtccccaatccaaacttttcagaatgac 1080
Db 1021 ggaatagtcagaatcatatgaataatcacgtgtccccaatccaaacttttcagaatgac 1080
Oy 1081 tgtcatagccttcacacagagccgagtgtctgcagcttaaaacacacatctacaacccaa 1140
Db 1081 tgtcatagccttcacacagagccgagtgtctgcagcttaaaacacacatctacaacccaa 1140
Oy 1141 gtgcctcaacatgtttaagtgatcatctcagtaggtcccaattcaaaatgacactccccc 1200
Db 1141 gtgcctcaacatgtttaagtgatcatctcagtaggtcccaattcaaaatgacactccccc 1200
Oy 1201 tgtgcaagcccatcccgctcccaaggaagctccccaactagacttctgtcatalcagatgt 1260
Db 1201 tgtgcaagcccatcccgctcccaaggaagctccccaactagacttctgtcatalcagatgt 1260
```

QY 1261 taagcgcaagaagctcgttgaggttgaggtctgtcttaacactcgtatgtctac 1320  
 |||  
 Db 1261 taagacgaagaagctccgttgaggttgaggtctgtcttaacactcgtatgtctac 1320  
 QY 1321 acctgagctaacgcaaacctctccctccaggttcaagcaattctctgtcttaagctcc 1380  
 |||  
 Db 1321 acctgagctaacgcaaacctctccctccaggttcaagcaattctctgtcttaagctcc 1380  
 QY 1381 cgcgtgagctgagactacagcgcaagcccgctaaattctgtatactgtaagagatggg 1440  
 |||  
 Db 1381 cgcgtgagctgagactacagcgcaagcccgctaaattctgtatactgtaagagatggg 1440  
 QY 1441 gtttccacataatagcccgctgtgtcttgaaacctgaaacctcaagtgatccaccacctc 1500  
 |||  
 Db 1441 gtttccacataatagcccgctgtgtcttgaaacctgaaacctcaagtgatccaccacctc 1500  
 QY 1501 agctctccaaagtctgaggtctacaggaatgaacctccgcccggcccaagggtcgaagt 1560  
 |||  
 Db 1501 agctctccaaagtctgaggtctacaggaatgaacctccgcccggcccaagggtcgaagt 1560  
 QY 1561 ttaaataagaaataaacttgaaatgttactaaaccaaaggaagaaacagaagaagctgtga 1620  
 |||  
 Db 1561 ttaaataagaaataaacttgaaatgttactaaaccaaaggaagaaacagaagaagctgtga 1620  
 QY 1621 taaattccagggatctcttgagatggggaatgggtgccatggctcgtccgtatgccagac 1680  
 |||  
 Db 1621 taaattccagggatctcttgagatggggaatgggtgccatggctcgtccgtatgccagac 1680  
 QY 1681 caatggctccatcaactctctccctccatctccatctccaggtctaaagcttaacttctat 1740  
 |||  
 Db 1681 caatggctccatcaactctctccctccatctccatctccaggtctaaagcttaacttctat 1740  
 QY 1741 caaccaatgtcttgagtaagctcccaatcgttacttgaaataaagataatacaataaactag 1800  
 |||  
 Db 1741 caaccaatgtcttgagtaagctcccaatcgttacttgaaataaagataatacaataaactag 1800  
 QY 1801 ttcacatttgaggacatctgtgtgtgtatagggagggagacataccccagaagactcct 1860  
 |||  
 Db 1801 ttcacatttgaggacatctgtgtgtgtatagggagggagacataccccagaagactcct 1860  
 QY 1861 tgaagagcccgacagaggtctccctccctccagcttgaggagccctgcgaagcccgaggctcc 1920  
 |||  
 Db 1861 tgaagagcccgacagaggtctccctccctccagcttgaggagccctgcgaagcccgaggctcc 1920  
 QY 1921 tgggtgtctcttgagcaaacctgtgcaagccgtgtgcaactgtgtttgttatcaactctcag 1980  
 |||  
 Db 1921 tgggtgtctcttgagcaaacctgtgcaagccgtgtgcaactgtgtttgttatcaactctcag 1980  
 QY 1981 gacgtgtctcttaattctctgttgagactcgttcaattctatccaggaatctatgtgaact 2040  
 |||  
 Db 1981 gacgtgtctcttaattctctgttgagactcgttcaattctatccaggaatctatgtgaact 2040  
 QY 2041 tatctgagtaactatactctgcccagacacacagagacaaatactgtgtgacaaagcagctcag 2100  
 |||  
 Db 2041 tatctgagtaactatactctgcccagacacacagagacaaatactgtgtgacaaagcagctcag 2100  
 QY 2101 ccttaacctctgtgaggttgagacttctctcaatggaagacgtgtgcaagaagaataatagcca 2160  
 |||  
 Db 2101 ccttaacctctgtgaggttgagacttctctcaatggaagacgtgtgcaagaagaataatagcca 2160  
 QY 2161 gccaaacttaaacccaggtgttgaaagaagaagaataaataacccactcttgaaagaattgtgcg 2220  
 |||  
 Db 2161 gccaaacttaaacccaggtgttgaaagaagaagaataaataacccactcttgaaagaattgtgcg 2220  
 QY 2221 agcatctccttaacaagagcaacctccctagcgcgcctgtgtctgctcaatcgttgacggagag 2280  
 |||  
 Db 2221 agcatctccttaacaagagcaacctccctagcgcgcctgtgtctgctcaatcgttgacggagag 2280  
 QY 2281 ccccaagagccgagatctctcaagactcctctcaactcaatcagatcagagcgtgtgagctcgt 2340  
 |||  
 Db 2281 ccccaagagccgagatctctcaagactcctctcaactcaatcagatcagagcgtgtgagctcgt 2340  
 QY 2341 gctctgctctccgttgaaatcgtctgtgcatctgagcttgagaaactcctctgtctcgaagct 2400  
 |||

Db 2341 gctctgctctccgttgaaatcgtctcgtgtgcatctgaagcttgagagctctctgtcccaagct 2400  
 |||  
 QY 2401 ccgaagaagaaatcgagagagaaactagcttcaacggaatactctgagggagacagtgcttc 2460  
 |||  
 Db 2401 ccgaagaagaaatcgagagagaaactagcttcaacggaatactctgagggagacagtgcttc 2460  
 QY 2461 ctcaagaggaagaagggctccacagctccacagagaaatctccaaagagctggagagag 2520  
 |||  
 Db 2461 ctcaagaggaagaagggctccacagctccacagagaaatctccaaagagctggagagag 2520  
 QY 2521 tgggtgagcttgaggcttgagcgggtgtctgaaaggcaggaagggtgaaaggcgaagctgaa 2580  
 |||  
 Db 2521 tgggtgagcttgaggcttgagcgggtgtctgaaaggcaggaagggtgaaaggcgaagctgaa 2580  
 QY 2581 gctgcacagatgttcaagtggtgtgtccaggggctgggaagtttccgtgtctctctgtgagc 2640  
 |||  
 Db 2581 gctgcacagatgttcaagtggtgtgtccaggggctgggaagtttccgtgtctctctgtgagc 2640  
 QY 2641 ctcttatactctctctgtcttgagaggaagaagatcaattcaatgaagagatgcaattc 2700  
 |||  
 Db 2641 ctcttatactctctctgtcttgagaggaagaagatcaattcaatgaagagatgcaattc 2700  
 QY 2701 ataaagctcagctgtataaatccaggggtgtgcaatgggtcttccctcaagaaagccttat 2760  
 |||  
 Db 2701 ataaagctcagctgtataaatccaggggtgtgcaatgggtcttccctcaagaaagccttat 2760  
 QY 2761 ttaaataagaaataagaaagcgaagctcaattctccagggcgtttaatccaagaaagatgac 2820  
 |||  
 Db 2761 ttaaataagaaataagaaagcgaagctcaattctccagggcgtttaatccaagaaagatgac 2820  
 QY 2821 tggagctcttctctctcaatgtctctcttgagcaactacacagccctgtgtgagcttgctta 2880  
 |||  
 Db 2821 tggagctcttctctctcaatgtctctcttgagcaactacacagccctgtgtgagcttgctta 2880  
 QY 2881 tgcgaagacggtctgaaaaaccttggaatcagagagactcgtgttctctctcgtctgcacat 2940  
 |||  
 Db 2881 tgcgaagacggtctgaaaaaccttggaatcagagagactcgtgttctctctcgtctgcacat 2940  
 QY 2941 ggttggtctgtgagccgggtgggcaagtggtctctctccctctgggcaataatctctctgt 3000  
 |||  
 Db 2941 ggttggtctgtgagccgggtgggcaagtggtctctctccctctgggcaataatctctctgt 3000  
 QY 3001 ataaagacctctgacgctctcgtgtctgttgaaacacttccctcgtgtatctcctgtgaggg 3060  
 |||  
 Db 3001 ataaagacctctgacgctctcgtgtctgttgaaacacttccctcgtgtatctcctgtgaggg 3060  
 QY 3061 ggaatgttgagagggagagagcagagctggaagcagctggaaccacagggaggtgagag 3120  
 |||  
 Db 3061 ggaatgttgagagggagagagcagagctggaagcagctggaaccacagggaggtgagag 3120  
 QY 3121 ggaacaggaagcagagcagagctgggtgtgtctcaatcagctctcaactgaatcagctcagaac 3180  
 |||  
 Db 3121 ggaacaggaagcagagcagagctgggtgtgtctcaatcagctctcaactgaatcagctcagaac 3180  
 QY 3181 cagagccggaagcccaaatgtctcaggaagctcaatgaacccaacagcccaacttctct 3240  
 |||  
 Db 3181 cagagccggaagcccaaatgtctcaggaagctcaatgaacccaacagcccaacttctct 3240  
 QY 3241 tcccttaagcatagacaatgtgcatctgtcacaataacaaagaatgcagagactaaactgt 3300  
 |||  
 Db 3241 tcccttaagcatagacaatgtgcatctgtcacaataacaaagaatgcagagactaaactgt 3300  
 QY 3301 ggttagcttctgtcgtgcatctcaaaaactcgggcccagagcaagtggaataatgcagagattg 3360  
 |||  
 Db 3301 ggttagcttctgtcgtgcatctcaaaaactcgggcccagagcaagtggaataatgcagagattg 3360  
 QY 3361 ttaaactttcaaccccttgacagcaccacccacagcagctcagatgcatctgacaaacag 3420  
 |||  
 Db 3361 ttaaactttcaaccccttgacagcaccacccacagcagctcagatgcatctgacaaacag 3420  
 QY 3421 agtgacctgacagcagggaggaagaagaagaagagatgtgatactgagcaagaag 3480  
 |||

Db 3421 agtgaacctgcagcgacaggggaggaagaaagagagga taagtgaatgaagcaagaag 3480  
Oy 3481 acagatcatcaagaaggcaagtgggaattgaccacaggaattatagttccacgttgatccctgg 3540  
Db 3481 acagatcatcaagaaggcaagtgggaattgaccacaggaattatagttccacgttgatccctgg 3540  
Oy 3541 gtctcagaaggcagggcatalatctgctggggggaagaaatcagttcagaaggagctgggaga 3600  
Db 3541 gtctcagaaggcagggcatalatctgctggggggaagaaatcagttcagaaggagctgggaga 3600  
Oy 3601 cctgaattctcaatacattatcttcctcttacaagctgaagtaattctgagcaagtcacaga 3660  
Db 3601 cctgaattctcaatacattatcttcctcttacaagctgaagtaattctgagcaagtcacaga 3660  
Oy 3661 gtagtaactgagcgctgtaagaattactgaattcttccttataggaaacctttctctcgt 3720  
Db 3661 gtagtaactgagcgctgtaagaattactgaattcttccttataggaaacctttctctcgt 3720  
Oy 3721 ggaagtgaagcaagaaggcgaatcccgcttctcttacaaggaagaaacatctccaaagag 3780  
Db 3721 ggaagtgaagcaagaaggcgaatcccgcttctcttacaaggaagaaacatctccaaagag 3780  
Oy 3781 taagaaccaagaagatccaagccttagtctctgcgactatataatgattggttcttggaaaaat 3840  
Db 3781 taagaaccaagaagatccaagccttagtctctgcgactatataatgattggttcttggaaaaat 3840  
Oy 3841 catcttcagcgatggtttactatctgattcagaagaattggaactgaacctttggccaagt 3900  
Db 3841 catcttcagcgatggtttactatctgattcagaagaattggaactgaacctttggccaagt 3900  
Oy 3901 taagaaccaagaaggctgtaaatgctccaagtctcagggcttaacgtgacagaacaatccaaga 3960  
Db 3901 taagaaccaagaaggctgtaaatgctccaagtctcagggcttaacgtgacagaacaatccaaga 3960  
Oy 3961 aggaatagaatctcttagagcaaaactggtctctccaacatctggaggctggatccgcaaggc 4020  
Db 3961 aggaatagaatctcttagagcaaaactggtctctccaacatctggaggctggatccgcaaggc 4020  
Oy 4021 agttctggaataatttactctccaagatctgaacactggttggatcttaacaacataaagt 4080  
Db 4021 agttctggaataatttactctccaagatctgaacactggttggatcttaacaacataaagt 4080  
Oy 4081 tgcacaaaggcaatcatattctcaagtggcttaagaattactctgcagaagttcttgataat 4140  
Db 4081 tgcacaaaggcaatcatattctcaagtggcttaagaattactctgcagaagttcttgataat 4140  
Oy 4141 ttaattgcatctgacatctgcttctgttcttctcctcttgggttattatgaatgaagcag 4200  
Db 4141 ttaattgcatctgacatctgcttctgttcttctcctcttgggttattatgaatgaagcag 4200  
Oy 4201 ggaattatataactctagttccagaagaagcctgtgaatttgaatggaggaagaaatctacattc 4260  
Db 4201 ggaattatataactctagttccagaagaagcctgtgaatttgaatggaggaagaaatctacattc 4260  
Oy 4261 tggttttacacacctctcaacaaatttaacaatttatccacttgggaatagagccataaa 4320  
Db 4261 tggttttacacacctctcaacaaatttaacaatttatccacttgggaatagagccataaa 4320  
Oy 4321 ctcaaaagtgaataaagcagtaacctgtgatttctgtcatccaatagaaatcacagacatt 4380  
Db 4321 ctcaaaagtgaataaagcagtaacctgtgatttctgtcatccaatagaaatcacagacatt 4380  
Oy 4381 ttaatacatataacagtctgtgcagaataagcttgtaagtgaatatatttactcaaaacta 4440  
Db 4381 ttaatacatataacagtctgtgcagaataagcttgtaagtgaatatatttactcaaaacta 4440  
Oy 4441 cttcgaaaatcagacctccctgttgatcctgtctttaacatatiaaataacatgtttaaa 4500  
Db 4441 cttcgaaaatcagacctccctgttgatcctgtctttaacatatiaaataacatgttttaa 4500  
Oy 4501 attctgatatcttgataaataatctcaatctgaatctgttctccttctgtaactatattc 4560  
Db 4501 attctgatatcttgataaataatctcaatctgaatctgttctccttctgtaactatattc 4560

Oy 4561 atatattgaaaacatctctctgaaagaagttccccaatttccaacaaatgaagttcttg 4620  
Db 4561 atatattgaaaacatctctctgaaagaagttccccaatttccaacaaatgaagttcttg 4620  
Oy 4621 catgcacacacagagtaagaactgatttagaagctaaactgaacatctgctcgaga 4680  
Db 4621 catgcacacacagagtaagaactgatttagaagctaaactgaacatctgctcgaga 4680  
Oy 4681 tgcagaactgaaattagaagaattcttcccaagaatatacagaatggtttttaaactagggtg 4740  
Db 4681 tgcagaactgaaattagaagaattcttcccaagaatatacagaatggtttttaaactagggtg 4740  
Oy 4741 aggggggaactctgcgctctctatagaagaatgcctcccttgagacctgtaaggctctc 4800  
Db 4741 aggggggaactctgcgctctctatagaagaatgcctcccttgagacctgtaaggctctc 4800  
Oy 4801 ctgtgtctctgctgctgcttatttctctctgctccctgctacagttcttaagaactgttc 4860  
Db 4801 ctgtgtctctgctgctgcttatttctctctgctccctgctacagttcttaagaactgttc 4860  
Oy 4861 ggaatccagttctctagcagatgctcctgcagcagtgacagttccaatgaatttgcagag 4920  
Db 4861 ggaatccagttctctagcagatgctcctgcagcagtgacagttccaatgaatttgcagag 4920  
Oy 4921 tgaatggaataataaactagaagaatataatccttctgtgaataacagcaccagtaagctgg 4980  
Db 4921 tgaatggaataataaactagaagaatataatccttctgtgaataacagcaccagtaagctgg 4980  
Oy 4981 tgaagtctgtctagctgctgt 5040  
Db 4981 tgaagtctgtctagctgctgt 5040  
Oy 5041 taggaactatacttgggtctaggtgtgcataaacttgggaatgtctcttcttaaaagaactc 5100  
Db 5041 taggaactatacttgggtctaggtgtgcataaacttgggaatgtctcttcttaaaagaactc 5100  
Oy 5101 caaacagactctctgaaggttatatttcttaagaatcttctgagcagcgtaaggcaacccc 5160  
Db 5101 caaacagactctctgaaggttatatttcttaagaatcttctgagcagcgtaaggcaacccc 5160  
Oy 5161 cctgtgcacagcccccacagcctccacgtggcgaacctctgtcttccccatgaaggctg 5220  
Db 5161 cctgtgcacagcccccacagcctccacgtggcgaacctctgtcttccccatgaaggctg 5220  
Oy 5221 gctcccagtatataaactctcttggagctcgggcatlgagcagaag 5271  
Db 5221 gctcccagtatataaactctcttggagctcgggcatlgagcagaag 5271

RESULT 5  
US-09-306-828-34  
; Sequence 34, Application US/09306828  
; GENERAL INFORMATION:  
; APPLICANT: Nguyen, Thai D.  
; APPLICANT: Polansky, Jon R.  
; APPLICANT: Chen, Pu  
; APPLICANT: Chen, Hua  
; TITLE OF INVENTION: Nucleic Acids, Kits, And Methods For The Diagnosis, Prognosis  
; CURRENT FILING DATE: 1999-05-07  
; EARLIER APPLICATION NUMBER: US 09/227,881  
; EARLIER FILING DATE: 1999-01-11  
; SOFTWARE: Microsoft Word 97  
; SEQ ID NO 34  
; LENGTH: 5271  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
US-09-306-828-34

Query Match 85.4%, Score 5271, DB 17, Length 5271;

Best Local Similarity 100.0%: Pred. No. 0;				
Matches 5211; Conservative 0; Mismatches 0; Indels 0; Gaps 0;				
QY	1	atcttgctcagtttaccctcagggtctatacgaatgaatcgaataacaaatgtgaaag	60	
Db	1	atcttgctcagtttaccctcagggtctatacgaatgaatcgaataacaaatgtgaaag	60	
QY	61	tccataaactgtataagctccatctcgatgtatgtctcttgagagatgaataagaaatca	120	
Db	61	tccataaactgtataagctccatctcgatgtatgtctcttgagagatgaataagaaatca	120	
QY	121	ggaaagagaggtatccacgttatgccaagtgtccaaggtgtgtctgtctcttaatttagtga	180	
Db	121	ggaaagagaggtatccacgttatgccaagtgtccaaggtgtgtctgtctcttaatttagtga	180	
QY	181	cagaatgtctgctcgaagaagactatctctcagaagaacatccacatatagtgtaaatc	240	
Db	181	cagaatgtctgctcgaagaagactatctctcagaagaacatccacatatagtgtaaatc	240	
QY	241	catcaaacagaggtacgaagaacaggaatgaaatggtgacctgtgccaaaggaataatgccag	300	
Db	241	catcaaacagaggtacgaagaacaggaatgaaatggtgacctgtgccaaaggaataatgccag	300	
QY	301	gagagcaaatatgatgaaataataaactttccctctgttttaatttcagagaaaaatg	360	
Db	301	gagagcaaatatgatgaaataataaactttccctctgttttaatttcagagaaaaatg	360	
QY	361	atgagagaccataatcaatgatatagaaataacagctcagaataaagaatgtttccaaattgg	420	
Db	361	atgagagaccataatcaatgatatagaaataacagctcagaataaagaatgtttccaaattgg	420	
QY	421	taattaaatattgtctcctctgagaaagaaagcctccacatgtgagcttgaatggtgaaatg	480	
Db	421	taattaaatattgtctcctctgagaaagaaagcctccacatgtgagcttgaatggtgaaatg	480	
QY	481	aaacgtcacaagaatgatcgtatccagatcccaagtgtatattattttaaaaaacagat	540	
Db	481	aaacgtcacaagaatgatcgtatccagatcccaagtgtatattattttaaaaaacagat	540	
QY	541	ggacatcctctgggagagcaagtctcaggaagtcatgttatgcaaaagacaataaataaac	600	
Db	541	ggacatcctctgggagagcaagtctcaggaagtcatgttatgcaaaagacaataaataaac	600	
QY	601	agcaaaaaatcaaaaatcccgcaaatgaggaataatggtgagacttggtgaaagctttctaac	660	
Db	601	agcaaaaaatcaaaaatcccgcaaatgaggaataatggtgagacttggtgaaagctttctaac	660	
QY	661	agtgatctaggcagttgacacatgtctgcaaacactcccgctctataccaggaacacaaaa	720	
Db	661	agtgatctaggcagttgacacatgtctgcaaacactcccgctctataccaggaacacaaaa	720	
QY	721	atctgacctgggactaagccttgactctcaaggaataatgaaaaactgtagagcaaaaaaaa	780	
Db	721	atctgacctgggactaagccttgactctcaaggaataatgaaaaactgtagagcaaaaaaaa	780	
QY	781	gacatggttataaaagcaaccagaaacatgttgagccttcaaaagcagatgccccctcagaa	840	
Db	781	gacatggttataaaagcaaccagaaacatgttgagccttcaaaagcagatgccccctcagaa	840	
QY	841	ggagaccctggagcatttgttcctttagaagggcaggtttcttaaggaattcttaagaacc	900	
Db	841	ggagaccctggagcatttgttcctttagaagggcaggtttcttaaggaattcttaagaacc	900	
QY	901	ttgaaagatcagaatctttaaaccattttaagataataaataaataatgagatgataatcag	960	
Db	901	ttgaaagatcagaatctttaaaccattttaagataataaataaataatgagatgataatcag	960	
QY	961	tttagaataatgggtcccaattctataaagtcaaggcatcaagaataatggtccagctcc	1020	
Db	961	tttagaataatgggtcccaattctataaagtcaaggcatcaagaataatggtccagctcc	1020	
QY	1021	ggatggtgcagaataatcatatgaataatcactgtgtcccatccaaacttttcagaatgac	1080	
Db	1021	ggatggtgcagaataatcatatgaataatcactgtgtcccatccaaacttttcagaatgac	1080	

Db	1021	ggatggtgcagaataatcatatgaataatcactgtgtcccatccaaacttttcagaatgac	1080	
QY	1081	tgcatatgcccctcaacacagggccggaatgtgtctgaccttaacacacatatcaaaccaa	1140	
Db	1081	tgcatatgcccctcaacacagggccggaatgtgtctgaccttaacacacatatcaaaccaa	1140	
QY	1141	gtgcctcaaccatgtttaacgtgtcatctcagtagtcccatatacaaatgtccacctccc	1200	
Db	1141	gtgcctcaaccatgtttaacgtgtcatctcagtagtcccatatacaaatgtccacctccc	1200	
QY	1201	tgtgcagcccatacccgctccacaggaagtctcccaactcagaactctgtcatcagatgt	1260	
Db	1201	tgtgcagcccatacccgctccacaggaagtctcccaactcagaactctgtcatcagatgt	1260	
QY	1261	tacagccagaagctccgttgaggttgaaaggtctgtcttaacactcactgtatgctctac	1320	
Db	1261	tacagccagaagctccgttgaggttgaaaggtctgtcttaacactcactgtatgctctac	1320	
QY	1321	acctgagctcactgcaaacctctgctcccaagtctcaagcaactctcctgtctcagctcc	1380	
Db	1321	acctgagctcactgcaaacctctgctcccaagtctcaagcaactctcctgtctcagctcc	1380	
QY	1381	cgtgtagctggtgactacaggtcgacagcccggtcaattcttgtatgtttagtaagatggg	1440	
Db	1381	cgtgtagctggtgactacaggtcgacagcccggtcaattcttgtatgtttagtaagatggg	1440	
QY	1441	gtttccacatatagcccggtgtgttgaactcctgaaactcgaactcgaatccaccacctc	1500	
Db	1441	gtttccacatatagcccggtgtgttgaactcctgaaactcgaactcgaatccaccacctc	1500	
QY	1501	agcctccataaagtgtctggtgaattacaggtcatgacacggtcccggtcgaatgtc	1560	
Db	1501	agcctccataaagtgtctggtgaattacaggtcatgacacggtcccggtcgaatgtc	1560	
QY	1561	ttaataaggaataactgtgaatgtttacttaaaccaacaggaacacagaaagctgtga	1620	
Db	1561	ttaataaggaataactgtgaatgtttacttaaaccaacaggaacacagaaagctgtga	1620	
QY	1621	taattcagaagatctcttggtgaatggtgtgcataagctctccgtcagatcccaagac	1680	
Db	1621	taattcagaagatctcttggtgaatggtgtgtgcataagctctccgtcagatcccaagac	1680	
QY	1681	cactgtgtccatcaactctctctccatccatcttcaaggtcaagttacattat	1740	
Db	1681	cactgtgtccatcaactctctctccatccatcttcaaggtcaagttacattat	1740	
QY	1741	caacatgctttgtgtgtaagcctccacatcgttatcgtgaataagatatacataaactag	1800	
Db	1741	caacatgctttgtgtgtaagcctccacatcgttatcgtgaataagatatacataaactag	1800	
QY	1801	ttccatttggtggccatctgtgtgtgtataggggaggggcataccacagaaagactcct	1860	
Db	1801	ttccatttggtggccatctgtgtgtgtgtataggggaggggcataccacagaaagactcct	1860	
QY	1861	tgaagcccccggaaggtttccctctcagctggtgggaagccctgcaagaacccgggtcc	1920	
Db	1861	tgaagcccccggaaggtttccctctcagctggtgggaagccctgcaagaacccgggtcc	1920	
QY	1921	tgggtgtctcttgagcaacccgtcgagccgtgccaactgtgtgtttgtatcacctcttag	1980	
Db	1921	tgggtgtctcttgagcaacccgtcgagccgtgccaactgtgtgtttgtatcacctcttag	1980	
QY	1981	gacccgtgtcttcaattctgttgaaactcgttcaattcaacaggaatcatcttgcaaat	2040	
Db	1981	gacccgtgtcttcaattctgttgaaactcgttcaattcaacaggaatcatcttgcaaat	2040	
QY	2041	tattagtaactatatactgtgccagacaacagaaatgtgtgaacaaagcagatcactgc	2100	
Db	2041	tattagtaactatatactgtgccagacaacagaaatgtgtgaacaaagcagatcactgc	2100	
QY	2101	cctaacctctgtggtgaggtgacagttctctcaatggaagcgtgtgcaagaataataatagca	2160	
Db	2101	cctaacctctgtggtgaggtgacagttctctcaatggaagcgtgtgcaagaataataatagca	2160	



0Y	2161	gcbacacttaaacccagtgctcgaaagaaagaaataaacacactctctgaagaatctgtgcg	2220
Db	2161	gcbacacttaaacccagtgctcgaaagaaagaaataaacacactctctgaagaatctgtgcg	2220
0Y	2221	agcaatcccttaabaaabagccacccctccctctagcgccctctgtccctctccatccgtgcccagag	2280
Db	2221	agcaatcccttaabaaabagccacccctccctctagcgccctctgtccctctccatccgtgcccagag	2280
0Y	2281	cccccaagcccgagctctctccaaagccctccctccctccatccagctcagctctgagctctgcg	2340
Db	2281	cccccaagcccgagctctctccaaagccctccctccctccatccagctcagctctgagctctgcg	2340
0Y	2341	gctctgcctcccgctgaatcgtctccctgtgctgaatcagctctgagactcctctgtctccagagct	2400
Db	2341	gctctgcctcccgctgaatcgtctccctgtgctgaatcagctctgagactcctctgtctccagagct	2400
0Y	2401	ccagaaagagaaatctgagagagagagaaatcagctctaaacgagaaatctgagagagagagcttc	2460
Db	2401	ccagaaagagaaatctgagagagagagaaatcagctctaaacgagaaatctgagagagagagcttc	2460
0Y	2461	ctccagaaagaaagagagagctccccaagctcccaagaaataatcccaagagagctgagagagctc	2520
Db	2461	ctccagaaagaaagagagagagctccccaagctcccaagaaataatcccaagagagctgagagagctc	2520
0Y	2521	ctgagagagctctgagagctgagagctgagctgaagagcagagagctgaagaaagcagagctctga	2580
Db	2521	ctgagagagctctgagagctgagagctgagctgaagagcagagagctgaagaaagcagagctctga	2580
0Y	2581	gctgccccagatgcttcagtgctgtctcaacgagagctctgagagcttctccgtctgctctgagac	2640
Db	2581	gctgccccagatgcttcagtgctgtctcaacgagagagctctgagagcttctccgtctgctctgagac	2640
0Y	2641	ctctctctctctccctccctctgagagagagaaagactaatctcaagaaagagctgaagctcttc	2700
Db	2641	ctctctctctctccctccctctgagagagagaaagactaatctcaagaaagagctgaagctcttc	2700
0Y	2701	ataaagctcagctctgaataatcccaagagctgtgagatggtctctctccatcaagagagccttat	2760
Db	2701	ataaagctcagctctgaataatcccaagagctgtgagatggtctctctccatcaagagagagccttat	2760
0Y	2761	ctaaatgagaaataagagagagagagctcaattctctagagcgtctaatctcaagaaagaaatgagc	2820
Db	2761	ctaaatgagaaataagagagagagagctcaattctctagagcgtctaatctcaagaaagaaatgagc	2820
0Y	2821	ctgagagctctctctctcaatctgct	2880
Db	2821	ctgagagctctctctctcaatctgct	2880
0Y	2881	ctgcaagagcagctcagaaagacctctgagatacaagagagactctgagctctctctctctctctct	2940
Db	2881	ctgcaagagcagctcagaaagacctctgagatacaagagagactctgagctctctctctctctctct	2940
0Y	2941	ggtctgagctgtgagagacagctgagagagctctctctctctctctctctctctctctctctctct	3000
Db	2941	ggtctgagctgtgagagacagctgagagagctctctctctctctctctctctctctctctctctct	3000
0Y	3001	ataaagagccctctgagagct	3060
Db	3001	ataaagagccctctgagagct	3060
0Y	3061	ggaatctgaaagagagagagagagcagagagctctgagagcagctctgagcagagagagagctgagag	3120
Db	3061	ggaatctgaaagagagagagagagcagagagctctgagagcagctctgagcagagagagagctgagag	3120
0Y	3121	ggaacagagagcagagcagaaagctgagctgagctcaatcagctctctcaatctgataatcagctagatc	3180
Db	3121	ggaacagagagcagagcagaaagctgagctgagctcaatcagctctctcaatctgataatcagctagatc	3180
0Y	3181	caagagccagagagagcacaatctgctctcaagaaagctccaatgaaaccaacagcacaattctctct	3240
Db	3181	caagagccagagagagcacaatctgctctcaagaaagctccaatgaaaccaacagcacaattctctctct	3240

QY	3241	tccttaagccttagacacatgycatttgcgaataacaaaagaatgacagagcttaactgct	3300
Db	3241	tccttaagccttagacacatgycatttgcgaataacaaaagaatgacagagcttaactgct	3300
QY	3301	ggttcgcttctgcgcgcattcctaaaccttgagccagacagctgagaaaatgcacagattg	3360
Db	3301	ggttcgcttctgcgcgcattcctaaaccttgagccagacagctgagaaaatgcacagattg	3360
QY	3361	ttaaacttttcacccctgcagaccagaccccgacgctcagctgagcttgctgcagacag	3420
Db	3361	ttaaacttttcacccctgcagaccagaccccgacgctcagctgagcttgctgcagacag	3420
QY	3421	agtgacctgcagcgcgagggagagagaagaagaagaggaatgctgtatctgcagaaag	3480
Db	3421	agtgacctgcagcgcgagggagagagaagaagaagaggaatgctgtatctgcagaaag	3480
QY	3481	acgaattctatccaaggcgagtgaggaaattgaacccaggggattatagttccacgttgctccg	3540
Db	3481	acgaattctatccaaggcgagtgaggaaattgaacccaggggattatagttccacgttgctccg	3540
QY	3541	gtctcagagagcgagggctaatctgttgaggggagaaaaatcaagcttcagaggaagctcgagga	3600
Db	3541	gtctcagagagcgagggctaatctgttgaggggagaaaaatcaagcttcagaggaagctcgagga	3600
QY	3601	ccgtgaattcttaatactatactatttccctttacaaagctgagtaattctcgagcaatccaaag	3660
Db	3601	ccgtgaattcttaatactatactatttccctttacaaagctgagtaattctcgagcaatccaaag	3660
QY	3661	gttagtaacctgaagcgtgtaagatttaacttaagttcttccttatagagaaaccttttctcgt	3720
Db	3661	gttagtaacctgaagcgtgtaagatttaacttaagttcttccttatagagaaaccttttctcgt	3720
QY	3721	ggagcttagcagcagcaaggcgcaatcccgcttctcttcaacagagaaagaaacatctcctaag	3780
Db	3721	ggagcttagcagcagcaaggcgcaatcccgcttctcttcaacagagagaaagaaacatctcctaag	3780
QY	3781	taaaagccaaacagatccaagctaaagctcttcgcgcataatgattctgtcttttgcgaaaat	3840
Db	3781	taaaagccaaacagatccaagctaaagctcttcgcgcataatgattctgtcttttgcgaaaat	3840
QY	3841	catcttcagcgagtgttactactctcgatttcgaagaaatgagaccttagccctttgacgctg	3900
Db	3841	catcttcagcgagtgttactactctcgatttcgaagaaatgagaccttagccctttgacgctg	3900
QY	3901	taaaccaaaccccgctgtgtaaatgcttcgaagcttcagagcttcacacgcagaaaccaatcca	3960
Db	3901	taaaccaaaccccgctgtgtaaatgcttcgaagcttcagagcttcacacgcagaaaccaatcca	3960
QY	3961	agaaatagaatctcttagagcaaacctgctgttctccacatctcgaggtgtagctctgcagagc	4020
Db	3961	agaaatagaatctcttagagcaaacctgctgttctccacatctcgaggtgtagctctgcagagc	4020
QY	4021	agtttggaaaataattacttcaacagatctgacacgctgtgtgtatctaaacaataaagt	4080
Db	4021	agtttggaaaataattacttcaacagatctgacacgctgtgtgtatctaaacaataaagt	4080
QY	4081	tgctcgaaggcaatcatattccaagtctgaagtgctcgaagttaactctgcagacgtttggtatat	4140
Db	4081	tgctcgaaggcaatcatattccaagtctgaagtgctcgaagttaactctgcagacgtttggtatat	4140
QY	4141	ttatctggcctatctgcacatttgctcttctgtcttctcctcttggtttatatgaatgaaagcag	4200
Db	4141	ttatctggcctatctgcacatttgctcttctgtcttctcctcttggtttatatgaatgaaagcag	4200
QY	4201	ggatctatctaacctacacgttccagaaagccctgtgaatttgaaatgaggaataaattcatcttc	4260
Db	4201	ggatctatctaacctacacgttccagaaagccctgtgaatttgaaatgaggaataaattcatcttc	4260
QY	4261	tggttttaccacaccttaaaccttaaaattcaacatttaccattcttgagaaatgaaagcataaa	4320
Db	4261	tggttttaccacaccttaaaccttaaaattcaacatttaccattcttgagaaatgaaagcataaa	4320
QY	4321	ctcaaaatggtaaaacagctaccttgcgatttgcataatcccaatgaaatacagacact	4380



481 aaagctcaaaagcatgactgacacagatcccaagtgatattatattttaaaacagat 540  
|||||  
481 AAGCTCAAAAGCATGATGATCAGATCCAAAGTGATATTATTTTAAAAACCAAGAT 540  
541 ggaacacatctggggaagcaagtcacgaagtcacgttcagcaaggacatacaaac 600  
|||||  
541 GGCATCATCTGGGGAGGCAAGTTCAGGAAGTCATGTTAGCAAGGACATACAAATAC 600  
601 agcaaaatcaaaatccgcacaaagcaggaagaaaagggacgtaggaagcttcaaac 660  
|||||  
601 AGCAAAATCAAAATTCGCAAAATGCAAGAGGAAATGGGACTGGAAAGCTTTCATAC 660  
661 agtgaatgaagcaattgaacatgctgcacaaaccccgcttatacagaaggaacaaaa 720  
|||||  
661 AGTGAATAGCAAGTTGACATGTTGCAACACCTCCCGTTATACAGGAGAACAAAA 720  
721 atgacatgggctcaagccttgagacttcaagggbaaatacaaaacatgagagcaaaaa 780  
|||||  
721 ATTGACTGGGCTAAGCCTGGAGCTTCAAGGGAATATGAAAACTGAGAGCAAAAA 780  
781 gaaatggctaaaggaacaaagaaacatgtagcctcaaaagcaagtgccctcaaga 840  
|||||  
781 GACATGGTTAAAGGCAACGAAACATTTGACGCTTCAAGGACAGAGTGCCTCAAGCA 840  
841 gggagcctgaggaacttgccctttagaagggcagtttcttaaggaatcttaagaaatc 900  
|||||  
841 GGGAGCCTGAGGCAATTTGGCTTTAGGAAGGCACTTTTCTTAAGGAATCTTAAGAAATC 900  
901 ctgaaagacatgaacttcaaccaatctaaagtaaaaaaatacgatgacaaatcaag 960  
|||||  
901 TTGAAACATCATGAAATTTTAAACATTTTAACTATTAACAAATATGCGATGATATCAG 960  
961 cttagacaatgggtcccaatttataaagtcagacatacaagataacgltgccagctcc 1020  
|||||  
961 TTTAGACATGGGTCCCAATTTTAAAGTCAAGGATACAAAGATACCTGTGCCAGCTCC 1020  
1021 ggaataggctcaagaatactatagaatactactgtgtcccaatccaaacttcaagaatga 1080  
|||||  
1021 GGATAGGTCAGAAATTCATTTAGAAATACACTGTGTCCCATCTTAACCTTTTACAGATGATC 1080  
1081 tctatagacccctcaacacacagagccgaatgltctgacatcaacacacacatacaca 1140  
|||||  
1081 TGTGATAGCCCTCAACACAGAGCCGATGTGTGACCTACAAACACATCTTAACAAACCAA 1140  
1141 gtgcctcaaacatctgttaaagtgatcaatcctcaagtaggtcccaatcaaacatccctccc 1200  
|||||  
1141 GTGCTCAAAACCATTTTAACTGTATCTCAGTAGGTCCCTTAACAAATGTCACCTCCCTCC 1200  
1201 tgtgacagcccatccgcgtccacagaagaatctcccaactctgaactctgacatacagatgt 1260  
|||||  
1201 TGTTCAGGCCATCCCGCTCCACAGAGATCTCCCACTCTAGACTTCTGCAATCCAGATGT 1260  
1261 taacagcagaagatccgttgaaagtgaaaggtcgtgtcttaaacataccttgatgctctac 1320  
|||||  
1261 TACAGCCAGAAAGTCCGTGAGAGGTGAGGCTGTGTACACCTACCTGTATGCTTAC 1320  
1321 accgtgaactcaactgcaacatctgcctccaggttcaagcaatctcctgtctcagctccc 1380  
|||||  
1321 ACCGTGAGTCACTGCAACCTGTGCTCCAGGTTCAACCAATTTCTGTCTCAACCTCCCTCC 1380  
1381 cagctagctgagctcaacagcagcagcccgctaaattcttataatgtatagtaagaaatggg 1440  
|||||  
1381 CGCGTAGCTGGGACTACAGGGGCAAGCCCGGCTAATTTTGTATTTAGTATGAGATGGG 1440  
1441 gttcaacacatactagcccggtgtgtcttgaaactccttgacatcaggttga tcaacacacatc 1500  
|||||  
1441 GTTTACACATATTTAGCCCGGTGTGTGAACCTCTGACCTCAGGTGATTCACCAACCTTC 1500  
1501 agcctcctaagaatgctgtgatacaagcaatgataccgagcccgagcaaggtgtaagtgt 1560  
|||||  
1501 AGCCTCCTTAAGAGTGTGGGATTTACAGGATATGATACCGCCCGGCAAGGGTTCAGTGT 1560  
1561 cttaataagaaataactgtgaatgttactaaacaaacaggaagaaagaacaaagctgtga 1620  
|||||

1561 TTAATTAAGAAATTAACCTGAATGGTTTACTAATACCAACAGGAAACACAAACCTGTGA 1620  
|||||  
1621 taattcaagggaatctctgtggaatgggaaatggtgcacatgaactgctgcctagctccagac 1680  
|||||  
1621 TAATTTACAGGATTTCTTGAGATGGGAAATGGTGCATAGACTGCTGCTAGTCCAGAC 1680  
1681 caactgtccctcaatacacttcttccctcatcctaatttcgaagctcaagttaccatttattc 1740  
|||||  
1681 CACTGTGCTCATATCACTTTCTCCCTCATCTCTCAATTTTCAGGCTAAGTTACATTTTATT 1740  
1741 caacatgcttctgtgtaagcctcacatcgtctacatgaataaagataatacaaacatag 1800  
|||||  
1741 CACCATGCTTTTGTGTAGAGCTCCACATGCTTACTGAATTAAGATATACATTAACATAG 1800  
1801 tccaatttgaggccaatcgtgtgtataggggaagggacatacccaagaactcctc 1860  
|||||  
1801 TTTCCATTTGGGGCATCATGTTGTGTGTATAGGGAGAGAGGCAATACCCAGACATCTCT 1860  
1861 tgaagcccccggcaggaagttctcctccagctgggggaagccctgcagagcaccgggggtcc 1920  
|||||  
1861 TGAAGCCCCCGCAGAGATTTCTCTCCAGCTGGGGAGCCCTGCACAGCACCCGGGGTCC 1920  
1921 tgggtctccatgaacaacatgccaagcccgtagcaactgtgtcttgatcaactcctag 1980  
|||||  
1921 TGGGTGCTCAGCAACCTGCCAGCCCGTGCACGTGTTTGTATACCTCTAGG 1980  
1981 gaactgtgtcttctatctctgtgtgactcgttcaatcaacaggaactcaatgaaact 2040  
|||||  
1981 GACCTGTTGCTTATTTATTTCTGTGTGACTGTTATTCATTCACAGGATTCATTTGACAAAT 2040  
2041 tatgtgacttataatctgcagagcaacaggaagaaatggtaggaaggaagcaactgc 2100  
|||||  
2041 TATTGAGTACTTATATCTGCGACACACAGACAAATGGTGTGACAAAGATGACTGCTC 2100  
2101 cctaacctcgtgggaagtgacagttctctcatgaaagagcgtgagaaagaaatlaaagcca 2160  
|||||  
2101 CCTTACCTTGTGAGAGTGTACAGTTTCTCATGGAAGAGCTGCAGAAATTAATATAGCA 2160  
2161 gccaacttaaacccagatgctgaaagaaagaaataaacaacatcttgaagaatgtgcgc 2220  
|||||  
2161 GCCAACTTAACCCAGTGTCTTAAGAAAGGAAATTAACACCATCTTGAAGAAATTTGTGGC 2220  
2221 agcatcccttaacagagcaactccctagcgccctctcctccatcgtgtcccgagag 2280  
|||||  
2221 AGCATCCCTTAACAGGCTCCTTACGCTTACGCGCCCTCTGCTCATCTGATGAGCCGGAGG 2280  
2281 cccccaagcccgagctctcaagcctcctctcaatcaatcaagcgtctgacgtgcgt 2340  
|||||  
2281 CCCCCAAGCCCGAGTCTTCAAGGCTCCTCTCCATCACTGATCAACAGGCTGCAGGTGGCT 2340  
2341 gctcgtctccgtgaaatcgctcgtgtgacatcctgagctggaactcctgtgtccagagct 2400  
|||||  
2341 GCTTGTCTTCCGTAATATGCTGTGTCATCTGAGCTGTGAGACCTCTTGTGCTCAGGCT 2400  
2401 ccaagaagaagaaatggaagggaaactagctcaaggaagaaatctggaaggggaaggtgttc 2460  
|||||  
2401 CCAGAAAGGAAATGAGAGGAACTAGCTTACCGAAGAACTTGAGAGGGACAGGTTC 2460  
2461 ctcaagaggaagggatcccaatcctcaaggaatctcaaggaaggtgaggaactgcaagga 2520  
|||||  
2461 CTCAGAGGGAAGAGGGCTCCACATGTCAGAGAAATTCAGAGAGGTGGGAGCTGCAGGGAG 2520  
2521 tggggaagcgtgagggctgagcgtgtgtgaaaggaaggaagtgaaagggcaaggtgaa 2580  
|||||  
2521 TGGGAGACCTGTGGGCTGTAGCGGGTGTCTGAAAGGCGAGGAAGTGAAGGCAAGGCTTAA 2580  
2581 gctgcacagaatgtaagtgtgtcaacggggctgggaatttccgtgtctcctgtgtgagc 2640  
|||||  
2581 GCTGCCAGATGTTCAAGTGTGTACGCGGGCTGGGAATTTTCCCTTCTCTGTGTGAGC 2640  
2641 ctcttatacttctcgtctgtgaaagaaagaaactctcaatgaaggaatgacgtctc 2700  
|||||

Db 2641 CTTTATATCTTTCTGCTTGGAGGAGAAAGTCTATTTCATGAAGGATGCAGTTTC 2700  
Qy 2701 ataaagtcagctglttaaaatlcagaaggtgltgcaltggtlttccttcagaagcccttat 2760  
Db 2701 ATAAAGTCAAGCTGTAAATTTCCAGGGTGTGATGGTTTTCTTCACGAAGGCTTTAT 2760  
Qy 2761 tttaatggaaataaaggaagagactcattccttaagccgttaattcagaagaagtgcac 2820  
Db 2761 TTTATGGGAATATAGGAAGGAGACTCATTTCTCAGGCCGTTAATTCACGGAAGAGTAC 2820  
Qy 2821 tggagtccttccttcctcgtctcctcctcgaactcagccctcgtgtgacttggtta 2880  
Db 2821 TGGAGCTTTTCTTTCTATGCTTCTGTGGCAACTACTACGCCCTGTGGTGAAGTGGCTTA 2880  
Qy 2881 tgcagaagcggltcgaanaaccttggaaatcagaagactcgttctccttcgttccat 2940  
Db 2881 TGCAGAAGCGGTGCAAAACCTTGGAAATCAGAGACTCGTTTTCTTCTGTGTCGCATT 2940  
Qy 2941 ggttggctgtggaacggltggagcaagtgtcctcctcctcctgggccaagtctcctgtc 3000  
Db 2941 GGTGGCTGTGGCAGCGTGGGCAAGTGTCTCTCTCCCTGGGCGCATAGCTTCTGCT 3000  
Qy 3001 ataaagaaccttgcagctcctcgtgtctgtgtgaacacttccctgtgattctcgttgaagg 3060  
Db 3001 ATAAAGACCTTTCAGACTCTCGTGTCTGTGAACACTTCCCTGTGATTCTCTGTGAAGGG 3060  
Qy 3061 ggaatgtgaagggaagggaagcagaagctlgagcaagctgagccagaagggaagg tggagg 3120  
Db 3061 GGAATGTGAGAGGGGAAGGAGGAGAGCTGAGAGCTGAGCCACAGGGAGGTGGAGGG 3120  
Qy 3121 ggaacgaagggaagcagaagctgggtgtctcctcctcctcctcctcctcctcctcctc 3180  
Db 3121 GGACAGGAAGGCAAGGAGAGGCTGGGTGTCTCATGCTCTCATCTATCATCGTCAAGCTC 3180  
Qy 3181 caagagcgaagagacacaatgtctcagaagaagctcaa tgaacccaagaccacaatttcct 3240  
Db 3181 CAGGACCGAGGACCAATGCTTTCAGGAAAGCTCAATGAACCAACAGCCACATTTTCTCT 3240  
Qy 3241 tccctaaagcatalagcaaatggtcattgtgccaa taaaccaaagaat tgcagaactaaatgt 3300  
Db 3241 TCCCTAAAGCATAGCAATGGCATTTGCCAATAACCAAAAGATGAGAGACTAATCTGGT 3300  
Qy 3301 ggttagcttctgcctggtcattcctaaatctggccagaagcagaatgtgaaatgtccagaat 3360  
Db 3301 GGTAGCTTTTGGCTGCTGATTTCAAAAACGTGGCCAGAGCAAGTGAATAAGCCAGAAATTG 3360  
Qy 3361 ttaaaccttccacccctgcagcagcaccaccaagctcagcagctgactgtgcagcagcag 3420  
Db 3361 TTTAACTTTTTCACCTGTGACAGAGCACCACGAGCTCAGCAGTACTGCTGACAGACAGG 3420  
Qy 3421 agtgaacctgcagcagcagggaggaagaagaagaagagagtagtgtatgagcaagaag 3480  
Db 3421 AGTGAACCTTGACGCGAGGGAGAGAGAAAGAAAGAGAGGATAGTGTATGAGCAAGAAAG 3480  
Qy 3481 acagactctcagaagcaggtggaaatgaacacagaggttaagctcagcaggtgaltcctg 3540  
Db 3481 ACAGATTTCAATTCAAGGGCAGTGGGAATGACACAGGATTTATAGTCCAGCTATCTCGG 3540  
Qy 3541 gttcctagaagcagggcctatattgtlggggggaanaaatcagttcagaagggaagtcggaga 3600  
Db 3541 GTTCTAGGAGGAGGGCTATATTGTGGGGGAAANAATCAGTTCAAGGAGGAGCGGGA 3600  
Qy 3601 cctgtattcctaatactatttctccttacaagctgagtaattctgagcaagltcacaag 3660  
Db 3601 CCGATTTCTAATACATATTTTCTTACAAAGCTGAGTAATTTGAGCAAGTCAAG 3660  
Qy 3661 gtaagtaacgaaggctgttaagattacttaattctcctctatcttggaaccttctcctgt 3720  
Db 3661 GTAGTACTGAGGCTGTAGATTACTTACTTCTCTTATTTAGGAACCTTTTCTCTCTGT 3720  
Qy 3721 ggaatgaagcaagaaggcaatcccgcttctcttaacaggaagaanaaatctcctaagg 3780  
Db 3721 GGAGTTAGAGAGCAAGAGGCAATCCGTTTCTTTTACAGGAAGAAACATTTCTTAAGAG 3780

Qy 3781 taaagccaaacagatltcaagccctaggtctgtcgtactata tga tgglttcttgaanaat 3840  
Db 3781 TAAAGCCAAACAGATTCAAGCCTTAGGCTTGCTGACTATATGATTTGGTTTTGAAAAAT 3840  
Qy 3841 cattcagcagtgcttactactcctgattcagaanaatgagactagacccttggltcagctg 3900  
Db 3841 CATTTCAGCATGTTTACTATCTGATTTCAGAAATGAGACTAGTACCCTTTGGTGCACCTG 3900  
Qy 3901 taaacaaacacccagttgttaaatgtctcaagttcaagcttaactgcagaacaaatcaaa- 3959  
Db 3901 TAAACAAACCCCATTTGTAAATGTCTCAAGTTCAAGCTTAAGCTTAACTGCAAGACCAATCAAT 3960  
Qy 3960 aagaataagaa tcttgaagcaaacctgtgtctcacaatcctggaaggltgaatcctcagaag 4019  
Db 3961 AAGAAATGAAATCTTTAGAGCAAACTGTGTCTTCAC -TGTGAGGTGATGCTGCCAGGG 4019  
Qy 4020 cagtttggaaataattactcacaaglatgcacactgtgttgglattaacaataaag 4079  
Db 4020 CAGTTTGGAAATTTTACTTACACAGATTTGACACTGTTGTTGTTAATTAACAACATTAAG 4079  
Qy 4080 tgcctaaagcaaatcatatlttcaagtggtctaaagttcaactctcagaagtttggata 4139  
Db 4080 TTGCTCAAGGCAATCATTTTCAAGTGGCTTAAAGTTACTGTGACGTTTGGTATA 4139  
Qy 4140 ttatctgctatgtcattgtccttcttctcctcctcctcctcctcctcctcctcctcct 4199  
Db 4140 TTTATTGGCTATTGGCATTTTGTCTTTTGTCTTTTGTCTTTTGTCTTTTATTAATGATAAGCA 4199  
Qy 4200 ggaatattcaactcaagctcagaagaagcctgtgaaattgaa tgaaggaaaaatltacatt 4259  
Db 4200 GGAATTTATTAACCTTACAGTCCAGAAAGCCGTGAATTTGAATAGGAAAAATTAATATT 4259  
Qy 4260 tcttcttcaaccctctcaactcaatlttaacattttatccacttgggaatgaagccataa 4319  
Db 4260 TTGTTTTCACCTCTTAATTAATTTAATTAATTTATTCATTGGGAATAGGCCATTA 4319  
Qy 4320 actcaaaagtgtlaataacagttacgttgtatltgtcatltaacaaatagaatcaagacat 4379  
Db 4320 ACTCAAAAGTGTAATTAAGTACTGTGATTTTGTCAATTAGCAATGAATACAGACAT 4379  
Qy 4380 tttaataataatacagttgtgtgcagatacgtgtgtaagtgaataatttatactcaaaact 4439  
Db 4380 TTTATCTATTTATTAAGTGTGTGACAGTACGTGTGAAGGAAATATTTTATACCAAACT 4439  
Qy 4440 acttgaataataagctcctcgtggaatcctgtgtttaaacttaataaactgtttaa 4499  
Db 4440 ACTTGAATTTAGACCTCCTGCTGATCTTTGTTTAAACATATTATTAACATGTTTAA 4499  
Qy 4500 aatttgataatttgaataatcaatltcaatltcattgttctccttgaatcatalatt 4559  
Db 4500 AATTTTGATATTTTGAATATCATATTTCATTTGTTTCTTTGTAATCATATATT 4559  
Qy 4560 tatataattgaanaacttctcgtgaagaaggttccccgaatttccacaatgggttctgt 4619  
Db 4560 TATATTTTGAAGAACTTTTCTGAGAAGAGTTCACCAATTTTACCAATTAAGAGTCTTGG 4619  
Qy 4620 gcatgcacacaacagatgaagaactgattagaagctacacattgacattgtgtcctgag 4679  
Db 4620 GCATGCACACACAGAGTGAAGACTGATTTAGAGCTTAACATTTGATGGTGTGAG 4679  
Qy 4680 atgcaagactgaaatagaagaattcctccaagaatacacagttgtttaaagctlaagggt 4739  
Db 4680 ATGCAAGACTGAAATTAAGAAAGTTCACCAAGATTAACAGTTGTTTAAAGCTAGGGGT 4739  
Qy 4740 gaggggggaatactcgcgtctctataagaa tgcctcctcctgaagcctgtgtaagggtgt 4799  
Db 4740 GAGGGGGGAATCTGCGCTTCTATGGAATGCTCTCCCTGAGGCTGTGAGGTGCTGT 4799  
Qy 4800 ccttgtctcgtgcgtggttatttctcgtccctgtcagctcgtcttaaggaactgtt 4859  
Db 4800 CCTTGTTCTGCTGCTGCTGTATTTTCTGTGCTCTGCTACGTCTTAAGGACTTGT 4859

[illegible]

RESULT 7  
US-09-227-081-1  
: Sequence 1, Application US/09227881

```

: GENERAL INFORMATION:
: APPLICANT: Nguyen, Thai D.
: APPLICANT: Polansky, Jon R.
: APPLICANT: Chen, Pu
: APPLICANT: Chen, Hua
: TITLE OF INVENTION: Nucleic Acids, Kits, And Methods For The Diagnosis, Prognosis And
: CURRENT APPLICATION NUMBER: US/09/227,881
: CURRENT FILING DATE: 1999-01-11
: EARLIER APPLICATION NUMBER: US 08/938,669
: EARLIER FILING DATE: 1997-09-26
: NUMBER OF SEQ ID NOS: 36
: SOFTWARE: Microsoft Word 97
: SEQ ID NO 1
: LENGTH: 5300
: TYPE: DNA
: ORGANISM: Homo sapiens
: US-09-227-881-1

```

Query Match	81.2%	Score 5008;	DB 16;	Length 5300;
Best Local Similarity	99.98%	Pred. No. 0;		
Matches 5298; Conservative	0;	Mismatches	1;	Indels 2;
		Gaps	2;	

Oy 1 atcttcttccagttaccctcagggtctctgaagaagaatgataaccaatgtgaag 60  
 |||||  
 Db 1 atcttcttccagttaccctcagggtctctgaagaagaatgataaccaatgtgaag 60  
 |||||  
 Oy 61 tccataaaccgtctaaagccccaattcggaaagtatcttggcagaatgaataagaatca 120  
 |||||  
 Db 61 tccataaaccgtctaaagccccaattcggaaagtatcttggcagaatgaataagaatca 120  
 |||||  
 Oy 121 ggaagaaggagatctcagcgttaagccaaagtgtccaaagcgtgtctgctctatatttagtga 180  
 |||||  
 Db 121 ggaagaaggagatctcagcgttaagccaaagtgtccaaagcgtgtctgctctatatttagtga 180  
 |||||  
 Oy 181 cagatgttgcctcctgaaagaagctattcttctcagaagaacatcacatccaatatavgtaaatc 240  
 |||||

Db	181	cgagtgctgcctcgcagcagaagcgtattcttcttcaggaataacatcaatcccatatgtgtaaac	240
Oy	241	catcaaacagagagctaaagaaacaggaatctgagatctgagcactctgcccagaagaaatctgcag	300
Db	241	catcaaacagagagctaaagaaacaggaatctgagatctgagcactctgcccagaagaaatctgcag	300
Oy	301	gagagcaaatatgtatgtgaaaaataaactttccctcttggttttaattctcaggaaaaaatctg	360
Db	301	gagagcaaatatgtatgtgaaaaataaactttccctcttggttttaattctcaggaaaaaatctg	360
Oy	361	atgaagaccacaaatcaatctgaaataaggaanaaacagctccagcaaaaaaagaatcttcccaattctg	420
Db	361	atgaagaccacaaatcaatctgaaataaggaanaaacagctccagcaaaaaaagaatcttcccaattctg	420
Oy	421	taataaagtatattgtcttctcttggaagagaccctccatctgtgagcttgaatctggaagaaatctgga	480
Db	421	taataaagtatattgtcttctcttggaagagaccctccatctgtgagcttgaatctggaagaaatctgga	480
Oy	481	aaacgtcaaaagcatgatctgatactcgaatcccaagctggaattatattctttaaanaaccgaat	540
Db	481	aaacgtcaaaagcatgatctgatactcgaatcccaagctggaattatattctttaaanaaccgaat	540
Oy	541	ggcactcactctcgggagagcagaagcttcagaagaagctgaatctgaacaaagggcatcaacaataac	600
Db	541	ggcactcactctcgggagagcagaagcttcagaagaagctgaatctgaatcaaaagggcatcaacaataac	600
Oy	601	agcaaaatcaaaaatctccgcaaaatctgacagaggaagaaatctggggactctggaaaagctttcataac	660
Db	601	agcaaaatcaaaaatctccgcaaaatctgacagaggaagaaatctggggactctggaaaagctttcataac	660
Oy	661	agtgatctagcgagctctgaccaaigtctcgcaaacactccctctataccagggagacaacaaa	720
Db	661	agtgatctagcgagctctgaccaaigtctcgcaaacactccctctataccagggagacaacaaa	720
Oy	721	attgactctagggcctcaaaagccctcgagactcttccaaagggaataatctgaanaaacctgaaagcaaaa	780
Db	721	attgactctagggcctcaaaagccctcgagactcttccaaagggaataatctgaanaaacctgaaagcaaaa	780
Oy	781	gacactgtgttaaaaggccaacccagaaacatctgtctgaagccttccaaagcagcagctgcccctcagca	840
Db	781	gacactgtgttaaaaggccaacccagaaacatctgtctgaagccttccaaagcagcagctgcccctcagca	840
Oy	841	gggaccctcgagagcattctgacctttaggaagggccagtttctcttaaggaatccttaagaatactc	900
Db	841	gggaccctcgagagcattctgacctttaggaagggccagtttctcttaaggaatccttaagaatactc	900
Oy	901	ctgaaagatctatgaattttaaaccttttaagtataaaaacaatatatgcgatataacag	960
Db	901	ctgaaagatctatgaattttaaaccttttaagtataaaaacaatatatgcgatataacag	960
Oy	961	tttaagaatactggctcccaattcttataaagctcaagcaataaagataagctgtgcccagctcc	1020
Db	961	tttaagaatactggctcccaattcttataaagctcaagcaataaagataagctgtgcccagctcc	1020
Oy	1021	ggaatagtctcaagaataatcatctagaataatcaactctgtgtcccaatccctaacttttctcagaatgctc	1080
Db	1021	ggaatagtctcaagaataatcatctagaataatcaactctgtgtcccaatccctaacttttctcagaatgctc	1080
Oy	1081	tgctcatagcctctcacacacagcccgagtgctgtctgacctatacaacacacactctcaaacccaa	1140
Db	1081	tgctcatagcctctcacacacagcccgagtgctgtctgacctatacaacacacactctcaaacccaa	1140
Oy	1141	gtgacctcaaacctgtttaagctgtcaatctgaagtagctcccatataaataatgcaacactccgc	1200
Db	1141	gtgacctcaaacctgtgttaagctgtcaatctgaagtagctcccatataaataatgcaacactccgc	1200
Oy	1201	tgctgagcccaatcccgctctcacaaggaagctctccccaactctgactctctgcatcaagatgt	1260
Db	1201	tgctgagcccaatcccgctctcacaaggaagctctccccaactctgactctctgcatcaagatgt	1260
Oy	1261	tacagcagaagaagctctcgctgaaggtgtgaaggtctgtgtcttacaactcaactctgtatgctctaac	1320
Db	1261	tacagcagaagaagctctcgagaggtgtgaaggtctgtgtcttacaactcaactctgtatgctctaac	1320

OY 1321 acctgagctaacctgcacactcgtccccaagtccaagcaattctctctgctcagctcc 1380  
|||||  
Db 1321 acctgagctcacctgcacacactcgtccccaagtccaagcaattctctctgctcagctcc 1380  
OY 1381 cgggtgagctgagactaaagcgacgcccgcctaaattctgttatgtttagtaagatggg 1440  
|||||  
Db 1381 cgggtgagctgagactaaagcgacgcccgcctaaattctgttatgtttagtaagatggg 1440  
OY 1441 gttccacacatcagaccgctgctctggaacccctggaacctcaggtgatccaccacttc 1500  
|||||  
Db 1441 gttccacacatcagaccgctgctctggaacccctggaacctcaggtgatccaccacttc 1500  
OY 1501 agcctccctaaagtctgaggatccaaggaatcgaacgcccgcggaagggtcagttgt 1560  
|||||  
Db 1501 agcctccctaaagtctgaggatccaaggaatcgaacgcccgcggaagggtcagttgt 1560  
OY 1561 ttataaaggaataaacttgaaatgttataaaccacaaaggaacacgaacaaagctgtga 1620  
|||||  
Db 1561 ttataaaggaataaacttgaaatgttataaaccacaaaggaacacgaacaaagctgtga 1620  
OY 1621 taattcagaagatctcttggaatgggaatggatgcacatgagctgcctgacctcagac 1680  
|||||  
Db 1621 taattcagaagatctcttggaatgggaatggatgcacatgagctgcctgacctcagac 1680  
OY 1681 cactggtcctcaatcaactctctccctcaatcttccagctaaagttaacatttat 1740  
|||||  
Db 1681 cactggtcctcaatcaactctctccctcaatcttccagctaaagttaacatttat 1740  
OY 1741 caccatgagcttcttggttaagcctccacatctgctacaggaataaagatatacaatactag 1800  
|||||  
Db 1741 caccatgagcttcttggttaagcctccacatctgctacaggaataaagatatacaatactag 1800  
OY 1801 ttccatctgggggacacatctgtgtgtatagaaggagacataccccaagactcct 1860  
|||||  
Db 1801 ttccatctgggggacacatctgtgtgtatagaaggagacataccccaagactcct 1860  
OY 1861 tgaagcccccgcagagagttctctctccagctggggagcctgcgaagcaccgggtcc 1920  
|||||  
Db 1861 tgaagcccccgcagagagttctctctccagctggggagcctgcgaagcaccgggtcc 1920  
OY 1921 tgggtgtctcctgagcaaacctggccagccgtgacatgtgttctgttatcaactcttagg 1980  
|||||  
Db 1921 tgggtgtctcctgagcaaacctggccagccgtgacatgtgttctgttatcaactcttagg 1980  
OY 1981 gaactgtctctctctatctctgtgtgactcgtatcatcatccagcatcatgacaatt 2040  
|||||  
Db 1981 gaactgtctctctctatctctgtgtgactcgtatcatcatccagcatcatgacaatt 2040  
OY 2041 tatctgatactatcatctgcagacacacagagaacaaatcgttgagcaaaagtcactgc 2100  
|||||  
Db 2041 tatctgatactatcatctgcagacacacagagaacaaatcgttgagcaaaagtcactgc 2100  
OY 2101 cctaacctctggtgaggttgacagtcttctatggaagacgtgcgaagaataataatgcca 2160  
|||||  
Db 2101 cctaacctctggtgaggttgacagtcttctatggaagacgtgcgaagaataataatgcca 2160  
OY 2161 gccaactttaaaccagctgtctgaagaagaagaataaaccacactctggaagaattgtgcgc 2220  
|||||  
Db 2161 gccaactttaaaccagctgtctgaagaagaagaataaaccacactctggaagaattgtgcgc 2220  
OY 2221 agcatcccttaaacagagcacactcccttagcgcctctgctcatcatcgtgcgcgagag 2280  
|||||  
Db 2221 agcatcccttaaacagagcacactcccttagcgcctctgctcatcatcgtgcgcgagag 2280  
OY 2281 cccccaagccgaggtcttccaagcctcctccatcaatccaagagctgcagctggcct 2340  
|||||  
Db 2281 cccccaagccgaggtcttccaagcctcctccatcaatccaagagctgcagctggcct 2340  
OY 2341 gactcagctcccgctgaatcgtctcgtgtgcatctgagctggagaactcctcgtctcagact 2400  
|||||  
Db 2341 gactcagctcccgctgaatcgtctcgtgtgcatctgagctggagaactcctcgtctcagact 2400

OY 2401 ccagaagaagaatcgaagaaggaaactagtcatacggagaatctcgaaggagacgtgttc 2460  
|||||  
Db 2401 ccagaagaagaatcgaagaaggaaactagtcatacggagaatctcgaaggagacgtgttc 2460  
OY 2461 ctcaaggaggaaagggtcctccacgtccagagaatactccaggaagtggagactcagaagg 2520  
|||||  
Db 2461 ctcaaggaggaaagggtcctccacgtccagagaatactccaggaagtggagactcagaagg 2520  
OY 2521 tggggacgctggggctgaagggtgtctgaagaaggcagaaggctaaaggcagagctgaa 2580  
|||||  
Db 2521 tggggacgctgggggtcgaagggtgtctgaagaaggcagaagggtgaagaaggcagagctgaa 2580  
OY 2581 gctgcaccaagtgtcagtggtgtgtccaagggctgggaagttccgtgtctccgtgtgagc 2640  
|||||  
Db 2581 gctgcaccaagtgtcagtggtgtgtccaagggctgggaagttccgtgtctccgtgtgagc 2640  
OY 2641 cttttatcttctctctcgtctggaagagaagaagcttatctcaatgaaggatccaatttc 2700  
|||||  
Db 2641 cttttatcttctctctcgtctggaagagaagaagcttatctcaatgaaggatccaatttc 2700  
OY 2701 ataaagtcagctgttaaactccaggtgtgtcatgggttctcctcaggaagccttat 2760  
|||||  
Db 2701 ataaagtcagctgttaaactccaggtgtgtcatgggttctcctcaggaagccttat 2760  
OY 2761 ttaaaggaataagaagagcagatcattcctcagacgtttaatccaagaaagtgaac 2820  
|||||  
Db 2761 ttaaaggaataagaagagcagatcattcctcagacgtttaatccaagaaagtgaac 2820  
OY 2821 tggagctcttctctctatgtctctcgtggcaactacacgcccgtgggtgacttgctta 2880  
|||||  
Db 2821 tggagctcttctctctatgtctctcgtggcaactacacgcccgtgggtgacttgctta 2880  
OY 2881 tgcgaagcgtctcgaacaaaccttggaatccaagagactggttctctctcgttcagcat 2940  
|||||  
Db 2881 tgcgaagcgtctcgaacaaaccttggaatccaagagactggttctctctcgttcagcat 2940  
OY 2941 ggttgctgtgcagccgtggagcaagtgtctctcctccctgggccaatgtctctgtct 3000  
|||||  
Db 2941 ggttgctgtgcagccgtggagcaagtgtctctcctccctgggccaatgtctctgtct 3000  
OY 3001 ataaagacccctgcaagctctcgtgtgtgtgaacattccctgtgattctctcgtgaggg 3060  
|||||  
Db 3001 ataaagacccctgcaagctctcgtgtgtgtgaacattccctgtgattctctcgtgaggg 3060  
OY 3061 ggaatgtgaagaggaaggagcagagctggaagcagctgagccaggggaggtgaggg 3120  
|||||  
Db 3061 ggaatgtgaagaggaaggagcagagctggaagcagctgagccaggggaggtgaggg 3120  
OY 3121 ggaaggaaggcagagcaagctgggtgtctccaatcagctccctcaatcagtcagactc 3180  
|||||  
Db 3121 ggaaggaaggcagagcaagctgggtgtctccaatcagctccctcaatcagtcagactc 3180  
OY 3181 caggagccgagagccacaatgtctcaggaagctccaatgaacccaagaagcacatttctc 3240  
|||||  
Db 3181 caggagccgagagccacaatgtctcaggaagctccaatgaacccaagaagcacatttctc 3240  
OY 3241 tccctaagcatagacaatgtgcatcttgccaataccaagaagaatgcagagactaaatgtt 3300  
|||||  
Db 3241 tccctaagcatagacaatgtgcatcttgccaataccaagaagaatgcagagactaaatgtt 3300  
OY 3301 ggtagacttctgcctggtcatctcaaaaactggccagagcgaagtggaaaatgcagagatctg 3360  
|||||  
Db 3301 ggtagacttctgcctggtcatctcaaaaactggccagagcgaagtggaaaatgcagagatctg 3360  
OY 3361 ttaaaacttccacccctgacacagcaccaccaagcctcagcaatgtactgtgtgcagacgg 3420  
|||||  
Db 3361 ttaaaacttccacccctgacacagcaccaccaagcctcagcaatgtactgtgtgcagacgg 3420  
OY 3421 agtgacctcagcagcagggagagaagaagaagaagaagatagtgtaagcaagaag 3480  
|||||  
Db 3421 agtgacctcagcagcagggagagaagaagaagaagaagatagtgtaagcaagaag 3480  
OY 3481 acagatcattccaaggcaggtggaaatlgaaaccaaggaatlaatgccagtcatcctgg 3540  
|||||



Dh	3481	acagattctcaatccaaagggcagtgggaaatcgaccacagggatctatagtcacagtgatcccg	35400
Oy	3541	gtctcagagagccggggctcatctctggtggggaanaaatcagctccaaaggaatctgggaga	36000
Dh	3541	gtctcagagagccggggcgtcatctctggtggggaanaaatcagctccaaaggaatctgggaga	36000
Oy	3601	ccgattctctaatactatactttctcccttacaagctgaagtaattctcgagcaagtcacag	36600
Dh	3601	ccgattctctaatactatactttctcccttacaagctgaagtaattctcgagcaagtcacag	36600
Oy	3661	gtatgtaacctgaggtctgtaagaaatctacttagttctctctatctatggaaacctttctcgt	37200
Dh	3661	gtatgtaacctgaggtctgtaagaaatctacttagttctctctatctatggaaacctttctcgt	37200
Oy	3721	ggagcttagccgacaaaggaagcaatccggtctctctttaaagggaagaaacaattccctaaag	37800
Dh	3721	ggagcttagccgacaaaggaagcaatccggtctctctttaaagggaagaaacaattccctaaag	37800
Oy	3781	taaaagccaaacagatctcaaaagccctcgaagtcctctgcgactataatctgtttcttgaaat	38400
Dh	3781	taaaagccaaacagatctcaaaagccctcgaagtcctctgcgactataatctgtttcttgaaat	38400
Oy	3841	caattccagcgaatgttctactatctcgatccagaataatgagactagtaacctgtgtcagctg	39000
Dh	3841	caattccagcgaatgttctactatctcgatccagaataatgagactagtaacctgtgtcagctg	39000
Oy	3901	taaaacaaaccccccagctgtgtaagtcctcaagtcagagcttaacctcgacagaaacaaacaa	39599
Dh	3901	taaaacaaaccccccagctgtgtaagtcctcaagtcagagcttaacctcgacagaaacaaacaa	39600
Oy	3960	aagaaataagaaatctcttaagagaanaacctgtgtcttcacacactgaaagctgactcgag	40191
Dh	3961	aagaaataagaaatctcttaagagaanaacctgtgtcttcacacactgaaagctgactcgag	40199
Oy	4020	cagttctggaataatcttaactcaagaatctgacacgtgtgtgtgatttaacaacaataag	40799
Dh	4020	cagttctggaataatcttaactcaagaatctgacacgtgtgtgtgatttaacaacaataag	40799
Oy	4080	ctgtctcaaaagcgaatctatcttaacgaatgagctcaaaagttaactctcgacagcttctgtata	41399
Dh	4080	ctgtctcaaaagcgaatctatcttaacgaatgagctcaaaagttaactctcgacagcttctgtata	41399
Oy	4140	cttatctggcctatctgcacattctgtctctctctctctctctctctctctctctctctctct	41999
Dh	4140	cttatctggcctatctgcacattctgtctctctctctctctctctctctctctctctctctct	41999
Oy	4200	ggagaatctaaacctaacagctccagaagaagcctgtaattctgaatgaggaanaaatctacatt	42599
Dh	4200	ggagaatctaaacctaacagctccagaagaagcctgtaattctgaatgaggaanaaatctacatt	42599
Oy	4260	ctgtttcttaacacactcttaactaaatcttaacattatctcaactctgcgaatagagccataa	43199
Dh	4260	ctgtttcttaacacactcttaactaaatcttaacattatctcaactctgcgaatagagccataa	43199
Oy	4320	actcaaaagctgtaataaacaagtaacctgtgattctgttcatactacaatagaaatacacagacat	43799
Dh	4320	actcaaaagctgtaataaacaagtaacctgtgattctgttcatactacaatagaaatacacagacat	43799
Oy	4380	cttatatactataatcaattctgtctgcagataagctgtgtaaggaataatctatactacaaact	44399
Dh	4380	cttatatactataatcaattctgtctgcagataagctgtgtaaggaataatctatactacaaact	44399
Oy	4440	actctggaataatgaagccctccgctggatctcgtttttaacataatataaacaatgatttaa	44999
Dh	4440	actctggaataatgaagccctccgctggatctcgtttttaacataatataaacaatgatttaa	44999
Oy	4500	aacttgataatcttgataaacaatatctcaatacatctgttcccttgtaaacataattt	45599
Dh	4500	aacttgataatcttgataaacaatatctcaatacatctgttcccttgtaaacataattt	45599
Oy	4560	tatatatctggaanaacatctctcgagaagaagctccccaattctcaacaaatgagctctg	46199

Db	4560	taataatttgaaacaactcttctctgagaagaagtctcccaagattcccaatgaagttcttg	4619
Qy	4620	gcatcgacacacacacagataagactcgattctaaaggctacaattgacattggtgctcgag	4679
Db	4620	gcatcgacacacacacagataagactcgattctaaaggctacaatcttggtgctcgag	4679
Qy	4680	atgcagaactgynaattagaaagtctccccaagatacacagttgttttaaagctagggtc	4739
Db	4680	atgcagaactgynaattagaaagtctccccaagatacacagttgttttaaagctagggtc	4739
Qy	4740	gaggggggynaattcgcgcgtctctataggaatgctcccttggaagcctgtgtaggtgcgt	4799
Db	4740	gaggggggynaattcgcgcgtctctataggaatgctcccttggaagcctgtgtaggtgcgt	4799
Qy	4800	cctgtgtctcgcgtcgtcttaattctctcgtctccctgctacgctcttaaagactgtc	4859
Db	4800	cctgtgtctcgcgtcgtcttaattctctcgtctccctgctacgctcttaaagactgtc	4859
Qy	4860	tggatctccagttctctagcatalgcccctggcacagtgacgtctctcaatbgaattgcaga	4919
Db	4860	tggatctccagttctctagcatalgcccctggcacagtgacgtctctcaatbgaattgcaga	4919
Qy	4920	gtgtaatggaaataaacaactgnaatatatccctgtgtgnaatacagacacccagtagtccg	4979
Db	4920	gtgtaatggaaataaacaactgnaatatatccctgtgtgnaatacagacacccagtagtccg	4979
Qy	4980	gtgtaagatgtctgacatgctgt	5039
Db	4980	gtgtaagatgt	5039
Qy	5040	ataggaactatattctgggtatggtgtgcataaattggaaatgtctcttttaaagaagaact	5099
Db	5040	ataggaactatattctgggtatggtgtgcataaattggaaatgtctcttttaaagaagaact	5099
Qy	5100	ccaaacagactctctgggaaggttatattcttaagaatactctctgctgacgcgtgtgaagcaacc	5159
Db	5100	ccaaacagactctctgggaaggttatattcttaagaatactctctgctgacgcgtgtgaagcaacc	5159
Qy	5160	ccctgtgacagccccccacgcctcaagtcgaagtcacactctgtcttcccccatagaaggct	5219
Db	5160	ccctgtgtgacagccccccacgcctcaagtcgaagtcgaagtcacactctgtcttcccccatagaaggct	5219
Qy	5220	ggctcccaagataataaaactctctggaagctcgggacatggagcaagcaagccacat	5279
Db	5220	ggctcccaagataataaaactctctggaagctcgggacatggagcaagcaagccacat	5279
Qy	5280	ccaggcacctcttcagcacagc 5300	
Db	5280	ccaggcacctcttcagcacagc 5300	

```

      RESULT      8
US-09-306-828-1
; Sequence 1, Application US/09306828
; GENERAL INFORMATION:
; APPLICANT: Nguyen, Thai D.
; APPLICANT: Polansky, Jon R.
; APPLICANT: Chen, Pu
; APPLICANT: Chen, Hua
; TITLE OF INVENTION: Nucleic Acids, Kits, And Methods For The Diagnosis, Prognosis
; CURRENT APPLICATION NUMBER: US/09/306,828
; CURRENT FILING DATE: 1999-05-07
; EARLIER APPLICATION NUMBER: US 09/227,881
; EARLIER FILING DATE: 1999-01-11
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: Microsoft Word 97
; SEQ ID NO 1
; LENGTH: 5300
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-306-828-1

```

Query Match	81.2%	Score 5008	DB 17	Length 5300	
Best Local Similarity	99.9%	Pred. No. 0			
Matches 5298	Conservative	0	Matches	1	Indels 2
					Gaps 2
OY	1	atcttgcaggttaccctccagggcattatgaatgaaatgagaataaccatctgtgaag	60		
Db	1	atcttgcaggttaccctccagggcattatgaatgaaatgagaataaccatctgtgaag	60		
OY	61	tcctataaacctgataagcctccattcgcgaatgtaatgctcttgccagagatataaagaa	120		
Db	61	tcctataaacctgataagcctccattcgcgaatgtaatgctcttgccagagatataaagaa	120		
OY	121	ggagagagagagatccacgttagccaaagctgcagagctgtgctcctctattatgaga	180		
Db	121	ggagagagagagatccacgttagccaaagctgtgctcctctattatgaga	180		
OY	181	cagatctctccctcgcgaagaagcattctctccgggaaacacacacacataagtaatc	240		
Db	181	cagatctctccctcgcgaagaagcattctctccgggaaacacacacacataagtaatc	240		
OY	241	catccaacacagagcttaagagaaaggaaatgagaatggcacttgcacaaagaaataatgcag	300		
Db	241	catccaacacagagcttaagagaaaggaaatgagaatggcacttgcacaaagaaataatgcag	300		
OY	301	ggagagcacaataatgataatgaaataaaacttccctctgtttttaaattccaggaataatg	360		
Db	301	ggagagcacaataatgataatgaaataaaacttccctctgtttttaaattccaggaataatg	360		
OY	361	atgagagacacaaatacgaataaggaagaacagcctcagaaagaatgttcccaattgg	420		
Db	361	atgagagacacaaatacgaataaggaagaacagcctcagaaagaatgttcccaattgg	420		
OY	421	taataaagatatttgcctctgggaagagaccctcacttgagacttgatgagaaatgggaa	480		
Db	421	taataaagatatttgcctctgggaagagaccctcacttgagacttgatgagaaatgggaa	480		
OY	481	aaaacgtccaagaacagatctgatacgaatcccaagatgataatactttaaaacacagat	540		
Db	481	aaaacgtccaagaacagatctgatacgaatcccaagatgataatactttaaaacacagat	540		
OY	541	ggacatacactctgggagagcagaatctcaggaagatcagctgatacgaagaagacataaacat	600		
Db	541	ggacatacactctgggagagcagaatctcaggaagatcagctgatacgaagaagacataaacat	600		
OY	601	agcacaatacacaatccgcgaatgcaagagagaaatggggactcggaaagcttccataac	660		
Db	601	agcacaatacacaatccgcgaatgcaagagagaaatggggactcggaaagcttccataac	660		
OY	661	agtgatctggcagcttgacacatgctgcgaacacactcccgctatacagggagacaataa	720		
Db	661	agtgatctggcagcttgacacatgctgcgaacacactcccgctatacagggagacaataa	720		
OY	721	attgcactgggcataagcctcggaacttccaagggaataatgaaaacctgaaagcaacaataa	780		
Db	721	attgcactgggcataagcctcggaacttccaagggaataatgaaaacctgaaagcaacaataa	780		
OY	781	gacacatggtataaaggcaacacagaaatctgtagccttcaaaagcagctgacctcgcga	840		
Db	781	gacacatggtataaaggcaacacagaaatctgtagccttcaaaagcagctgacctcgcga	840		
OY	841	ggagaccctcgaggaatctgcctcttggaagggcagatcttcttaaggaatcttaagaatactc	900		
Db	841	ggagaccctcgaggaatctgcctcttggaagggcagatcttcttaaggaatcttaagaatactc	900		
OY	901	ctgaaagatctatgaaattttaaccatttaagtataaaaacaataatgcatatgaatcag	960		
Db	901	ctgaaagatctatgaaattttaaccatttaagtataaaaacaataatgcatatgaatcag	960		
OY	961	cttgaagacatgggtcccaattctataaagctcaggaataacagataaagctgttcccaagctcc	1020		
Db	961	cttgaagacatgggtcccaattctataaagctcaggaataacagataaagctgttcccaagctcc	1020		
OY	1021	ggataagtcagaaatcatttaagaatacactgtgtcccatccttaacttttcagaatgatac	1080		

Dh	1021	ggatagtcacgaatacattagaaatcacatctgttcccatccataacttttcagaaatgac	1080
Qy	1081	tgtcataagccctcaacacacagcccgatgtgtctgcactataacacacatcttacaaccca	11440
Dh	1081	tgtcataagccctcaacacacagcccgatgtgtctgcactataacacacatcttacaaccca	11440
Qy	1141	gtgcctcaacacatttgttaacgtgtcactcctatagtgctccattacaatgtcacactccc	12000
Dh	1141	gtgcctcaacacatttgttaacgtgtcactcctatagtgctccattacaatgtcacactccc	12000
Qy	1201	tgttcagcccatcccgctccacaggaagtctcccaactatagactctgtacatcacatgt	12600
Dh	1201	tgttcagcccatcccgctccacaggaagtctcccaactatagactctgtacatcacatgt	12600
Qy	1261	tacagccagaagctcccgtagaggtgtgttcttaacactatccgttatgtcttac	13200
Dh	1261	tacagccagaagctcccgtagaggtgtgttcttaacactatccgttatgtcttac	13200
Qy	1321	acctagactctacacacactctgcctccacaggtctcaagacattctctctccacactcc	13800
Dh	1321	acctagactctacacacactctgcctccacaggtctcaagacattctctctccacactcc	13800
Qy	1381	cgcgtagcttgagactaacagcgacgcgcgcgtcaattttgttatgttatgtagagatgg	14400
Dh	1381	cgcgtagcttgagactaacagcgacgcgcgcgtcaattttgttatgttatgtagagatgg	14400
Qy	1441	gtttacacatctttagcccgctgtgtcttgaaacctcgacactaagtgtatccacccactc	15000
Dh	1441	gtttacacatctttagcccgctgtgtcttgaaacctcgacactaagtgtatccacccactc	15000
Qy	1501	agccctccaaagtgactgagattaaagacatgaatccacgcgcgcgcgcgcgcgcgcgcgc	15600
Dh	1501	agccctccaaagtgactgagattaaagacatgaatccacgcgcgcgcgcgcgcgcgcgcgc	15600
Qy	1561	ttaataaggaataactgtgaatgtttactaaacacagggagaacagacaaagctgtga	16200
Dh	1561	ttaataaggaataactgtgaatgtttactaaacacagggagaacagacaaagctgtga	16200
Qy	1621	taatttaagggaatctcttgaggatagggaaatgtgtgcataagagctgcctgtactgtccacac	16800
Dh	1621	taatttaagggaatctcttgaggatagggaaatgtgtgcataagagctgcctgtactgtccacac	16800
Qy	1681	cactgtgtccataactctctccctccataccctcaatttcaaggctaatgtatccatttct	17400
Dh	1681	cactgtgtccataactctctccctccataccctcaatttcaaggctaatgtatccatttct	17400
Qy	1741	caccaatgtcttctgtgaagcctccacatcgttatcgtgaataagatatataataaactag	18000
Dh	1741	caccaatgtcttctgtgaagcctccacatcgttatcgtgaataagatatataataaactag	18000
Qy	1801	ttccaatttggggcacatctgtgtgtgttatagggaggggcataccccacagaaactcc	18600
Dh	1801	ttccaatttggggcacatctgtgtgtgttatagggaggggcataccccacagaaactcc	18600
Qy	1861	tgaagcccccgacaggaatctctctccacagcttgaggaggaacccctgaaacacccgggtcc	19200
Dh	1861	tgaagcccccgacaggaatctctctccacagcttgaggaggaacccctgaaacacccgggtcc	19200
Qy	1921	tgggtgtcttcagacaaactctgcacccgtgtcacatgtgttttgttatcaactctctag	19800
Dh	1921	tgggtgtcttcagacaaactctgcacccgtgtcacatgtgttttgttatcaactctctag	19800
Qy	1981	gaactgtgtcttctatcttctgtgtgtaacctgttatccatccacagcatctgtacaat	20400
Dh	1981	gaactgtgtcttctatcttctgtgtgtaacctgttatccatccacagcatctgtacaat	20400
Qy	2041	tattggaattactatattctgcacacacacaggaacaaatgtgtgagacaaagatcacatgc	21000
Dh	2041	tattggaattactatattctgcacacacacaggaacaaatgtgtgagacaaagatcacatgc	21000
Qy	2101	ctctacactctgtgaggtgaaagcttctctcatgtgaaagacgtgcagagaagaattatagca	21600

[illegible]

QY	3241	tccttaagcatagacaatctggtcatcttgcacataaccataaagaatgcagagactaaactgct	3300
Db	3241	tcacctaaagcatagacaatctggtcatcttgcacataaccataaagaatgcagagactaaactgct	3300
QY	3301	ggttagctcttgcctcgagatctcaaaactctggccagagcagctggagaaatgcccagatctg	3360
Db	3301	ggttagctcttgcctcgagatctcaaaactctggccagagcagctggagaaatgcccagatctg	3360
QY	3361	ttaaacttttaccctctgaccagacacccacgcagctcagctgagctgctgcagacagcgg	3420
Db	3361	ttaaacttttaccctctgaccagacacccacgcagctcagctgagctgctgcagacagcgg	3420
QY	3421	agtgacccgcagcgcagagggagagagagagagagagagatctatggtctcttgcagagaaag	3480
Db	3421	agtgacccgcagcgcagagggagagagagagagagagagatctatggtctcttgcagagaaag	3480
QY	3481	acagatctcatcacaagcgcagctgggaattgagccacagggattatagctccacgctgacctg	3540
Db	3481	acagatctcatcacaagcgcagctgggaattgagccacagggattatagctccacgctgacctg	3540
QY	3541	gttcttagagagcagcgctcatatctgtggggggaaaaaaatcaagctcaaggggaagtctggaga	3600
Db	3541	gttcttagagagcagcgctcatatctgtggggggaaaaaaatcaagctcaaggggaagtctggaga	3600
QY	3601	cctgattctcatatctcatatcttctcccttccaaagcctgagtaattctcgagcaagctcacag	3660
Db	3601	cctgattctcatatctcatatcttctcccttccaaagcctgagtaattctcgagcaagctcacag	3660
QY	3661	gtagtaactctgagctctgtaagaattactagattcttcccttcttaggaactcttcttctcgt	3720
Db	3661	gtagtaactctgagctctgtaagaattactagattcttcccttcttaggaactcttcttctcgt	3720
QY	3721	ggagcttagcacaagaagggaatcccggtctctcttccaaaggagaaagaatctccataag	3780
Db	3721	ggagcttagcacaagaagggaatcccggtctctcttccaaaggagaaagaatctccataag	3780
QY	3781	taaaagccaaaacagatctcaagccttagagctctgctgactatagatctggtcttttgcgaaat	3840
Db	3781	taaaagccaaaacagatctcaagccttagagctctgctgactatagatctggtcttttgcgaaat	3840
QY	3841	cattctcagcgaatgttctactctctgattccgaaaaatgagactgataccctttggtcaactg	3900
Db	3841	cattctcagcgaatgttctactctctgattccgaaaaatgagactgataccctttggtcaactg	3900
QY	3901	taaaacaaacacccagctgtgtataatgctccaaagtctcaagctctaaactcgagaacaaactcaa-	3959
Db	3901	taaaacaaacacccagctgtgtataatgctccaaagtctcaagctctaaactcgagaacaaactcaa-	3960
QY	3960	aagaatagaaatctttagagcaaaactgtgttctctcaatctcgagagtgagctctgcaggg	4019
Db	3961	aagaatagaaatctttagagcaaaactgtgttctctcaatctcgagagtgagctctgcaggg	4019
QY	4020	cagatttgaaaaatatttactcttcacagaagatgtgacaacgtgtgttgcgttatataaacaataag	4079
Db	4020	cagatttgaaaaatatttactcttcacagaagatgtgacaacgtgtgttgcgttatataaacaataag	4079
QY	4080	ctgctcaaaaggcaatcatatttcaagctgagcttaaaagtactctgcagacttttggtata	4139
Db	4080	ctgctcaaaaggcaatcatatttcaagctgagcttaaaagtactctgcagacttttggtata	4139
QY	4140	tttatatgctatctgcaatttgccttttggtttttcttcttcttggttatataatgataaaga	4199
Db	4140	tttatatgctatctgcaatttgccttttggtttttcttcttcttggttatataatgataaaga	4199
QY	4200	ggagattctaaaccacagctccagaagaacgctgtgaatttgaaatgagagaaaaatctacatt	4259
Db	4200	ggagattctaaaccacagctccagaagaacgctgtgaatttgaaatgagagaaaaatctacatt	4259
QY	4260	ctgtcttttaacaccttcaactaaatttaacatttatctcatctgcgaatagagccataa	4319
Db	4260	ctgtcttttaacaccttcaactaaatttaacatttatctcatctgcgaatagagccataa	4319

[illegible]

RESULT 9  
US-08-938-669-2  
; Sequence 2, Application US/08938669  
; GENERAL INFORMATION:

```

1  APPLICANT:  Nguyen, Thai D.
2  APPLICANT:  Polansky, Jon R.
3  TITLE OF INVENTION:  METHODS FOR THE DIAGNOSIS,
4  TITLE OF INVENTION:  PROGNOSIS AND TREATMENT OF GLAUCOMA AND RELATED DISEASE
5  TITLE OF INVENTION:  S
6  NUMBER OF SEQUENCES:  32
7  CORRESPONDENCE ADDRESS:
8  ADDRESSEE:  Howrey & Simon
9  STREET:  1299 Pennsylvania Avenue, N.W.
10 CITY:  Washington
11 STATE:  DC
12 COUNTRY:  USA
13 ZIP:  20004-2402
14 COMPUTER READABLE FORM:
15 MEDIUM TYPE:  Diskette
16 COMPUTER:  IBM Compatible
17 OPERATING SYSTEM:  DOS
18 SOFTWARE:  FASTSEQ for Windows Version 2.0
19 CURRENT APPLICATION DATA:
20 APPLICATION NUMBER:  US/08/938,669
21 FILING DATE:
22 CLASSIFICATION:  435
23 PRIOR APPLICATION DATA:
24 APPLICATION NUMBER:  08/791,154
25 FILING DATE:  28-JAN-1997
26 ATTORNEY/AGENT INFORMATION:
27 NAME:  Sira, Serge
28 REGISTRATION NUMBER:  39,445
29 REFERENCE/DOCKET NUMBER:  07425-0034
30 TELECOMMUNICATION INFORMATION:
31 TELEPHONE:  202 383-6857
32 TELEFAX:  202 383-6610
33
34 TELEX:
35 INFORMATION FOR SEQ ID NO:  2:
36 SEQUENCE CHARACTERISTICS:
37 LENGTH:  5304 base pairs
38 TYPE:  nucleic acid
39 STRANDEDNESS:  single
40 TOPOLOGY:  linear
41
42 US-08-938-669-2

```

[illegible]

Oy	421	taataaagatattgttcccttcgggaagaagacctccatctgtgaagcttgaatgvggaataatcggaa	480
Db	421	TAATTAAGTATTTGTTTCCTTTGGGAAGAAGACCTCCAGTGAAGTTATGGGAATAATGGGAA	480
Oy	481	aaacgtcaaaagatgatactgcatcagatcccaagtggtatttaattaaaccagat	540
Db	481	AAACGTCMAAAGCATGATCTGATCAATCCCAAGTGGATTATTATTTAAATCCAGAT	540
Oy	541	ggaatcacttcgggaagcaagttcagaagatgcatgttaagcaaaagacataataaac	600
Db	541	GGCATCACTCTGGGAGAGCAAGTTTCAGAAAGTCATGTTAGCAAAAGACATATACATTAAC	600
Oy	601	agcaaaatcaaaatlccgcaaalgcagaagaaatlvggagctvggaaagcttcaaac	660
Db	601	AGCAAAATCAAAATTCGCCGAATATGCAGAGAGAAATAGCGAGCTGGGAAAGCTTTCATTAAC	660
Oy	661	agbatatgagcagttgacaaatgfttgcacaacactcccgctctataccagggaacaaaa	720
Db	661	AGBATATGAGCAGTTGACCAATGTTGTCACAACCTCCCGCTCATACAGAGAACACAAA	720
Oy	721	attgaactcgggtcaagccctgagacttccaaggaatactgaaaacttgaagcaaaacaaa	780
Db	721	ATTGACTCGGGCTAAGCCTGAGACTTTCAAGGAATTTGAAAACTGAGAGCAAAACAAA	780
Oy	781	gacatggtttaaaagcaaacccaagacatctgtgaagccttcaagcagcagtgccccctcaga	840
Db	781	GACATGTTTAAAGGCAACCAAGCAACATTGTGAGCCTTTCAAGCAGAGAGTGCCCTCAGA	840
Oy	841	ggagacccttgaggcatctgaccttaagaaagccagtttctttaagaaatcttaagaactc	900
Db	841	GGGACCCCTGAGGCATTTGGCCCTTTAGGAAGGCCGTTTTCATTAAGAAATCTTAAGAAACTC	900
Oy	901	ctgaaagatcatgaaatttcaaccaatttaagataaaacaanaatgcgaatgcatatcag	960
Db	901	CTGAAATCATGAAATTTTAAACATTTTAAAGTTATAAACAATATGCGATGCAATATCAG	960
Oy	961	cttagacaatgggtctccaaatttataaagtcagcatacagaagataaactgtgtccagctcc	1020
Db	961	CTTAGACATGGGTCCCAATTTTATAAAGTCAGGCATATACAGATTAACGTTAACGTTCCAGCTCC	1020
Oy	1021	ggataggttcagaaatcatctagaataatcagctgtgtcccaatccatactttcaagaatgac	1080
Db	1021	GGATAGGTCAAGAAATCTTTGAAATATACGTGTGCCCATCTCAACCTTTTCAGAAATGATC	1080
Oy	1081	tgtaatagccctcaacaagaagccagatgtgtctgagcctaaagaacaacatctataaaccaa	1140
Db	1081	TGTATAGCCCTCAACACAGAGGCCCATGTGTGTGACTTACAAACCAATCTTCAACCCAA	1140
Oy	1141	gtgctcaacaacatctgttaaaagttgcatctcaagtagaagttcccatatacaaatgcaacctccc	1200
Db	1141	GTCGCTCAACCATTTGTTAAAGTGTATCTCAGTAGTGTCCCATTTACAAATGCCACTCCC	1200
Oy	1201	ctgtcagcccatcccgctctccacaagaagttccccaacttagactctgtcatcaagatgt	1260
Db	1201	CTGTCAACCCATCCCGCTCCACAGAGAAAGTCTCCCACTCTAGACTCTTCATCAAGATGT	1260
Oy	1261	taagcagaagaagctccgttgagggttgagggtctgtgtcttaaacactaccgtatgctcac	1320
Db	1261	TACAGCCAGAAAGCTCCGTGAGGGGTGAGGGGTCTGTGTTTACACATCACTCGTATGTGTAC	1320
Oy	1321	aacctgaactcaactgtcaaacctctgcctcccaagttcaagcaaatctcctgtctccagctccc	1380
Db	1321	AACCTGAACTCACTGCAACCTCTGCGCTCCCAAGTTCACAGAAATTCCTCTTCTCACGCTCC	1380
Oy	1381	cagctagcttggaactacagcgcagcccgctgaattcttgatattgtagtagagaatggg	1440
Db	1381	CGCTAGCTGGGACTACAGCGCAGCGCCGGCTAATTTTGTATTGTATGTAGAGATGGG	1440
Oy	1441	gtttcaccaataattagcccgctgtgtcttgtaactccctgaacctcaagtgtatccaacccactc	1500
Db	1441	GTTTCAACCAATTAATGAGCCCGCTGTGTTGAAATCTCGAACTCAAGGTATCAACCAACCTC	1500

QY	1501	agcctccaaagtgctcgggatacagagcatagatcaacgcgcgcggccaaggtcagtgct	1500
Db	1501	AGCCTCCAAAGTGCTCGGGATTACAGGCATGAGTCACCCGCCCGCCAGAGGTCAAGTG	1500
QY	1561	ltaaataaggaataactctgtaattgcttaactaaaccaacagggaaacagacaaagtctgta	1620
Db	1561	TTAATAAGGAATAACTTGGAATGGTTTAACTTAACCAACAGGAAACAGCAAAAGCTGTGA	1620
QY	1621	taacttaaggaatctcttggaatlgggaatcgtgtccatgtagctgcctcgtctatgccagac	1680
Db	1621	TAAATTACAGGAATTCCTGGATGGGGAATGGTGCCATGAGTGCTGCTGATGCCAGAC	1680
QY	1681	caactgtctccatcaactctcttccctcaatccatcttcaagctaaagtltaacattatct	1740
Db	1681	CACAGTCTCATCACTTCTTCTCCATCCATCCATTTCCAGGCTAAGTACCAATTTTAAT	1740
QY	1741	cacatctctttgtgtaaacctccacatcgttaactgaataaagataataataaactag	1800
Db	1741	CACATGCTTTGTGTGTAACCTCCACATCGTACTGAATTAAGATTAACATAACTAG	1800
QY	1801	ttccatctlggggccaatcgtctgtgtgtaaaagggaaggagcaatacccaagaaactcct	1860
Db	1801	TTCCATTTGGGGCCATCTGTGTGTGTAAGGGAGAGGGGCATTAACCCAGAACTCT	1860
QY	1861	ltgaagcccccggcaagagtlctcctctccagctlggggaagccctgaagaccggggtcc	1920
Db	1861	TGAAGCCCCCGGAGAGTTCCTCTCCAGCTGGGGAGACCTCTGCACACCCGGGGTCC	1920
QY	1921	tggatgtccctgagaacactctgcagcccgctgccaactggtgtgttttaactctcttag	1980
Db	1921	TGGGTGTCTCGAGCAACCTCCAGCCCGTGCACGTGGTGTGTTCATCTCTCAAG	1980
QY	1981	gaactgtgtctcttaactctctgtgtgaactcgttcatctatccaaagcatctatgaaca	2040
Db	1981	GACCTGTGTCTTCTTATTTCTGTGTGTACTCGTTCAATTCAGGCATTTCAATGA	2040
QY	2041	latgtgaactatatactgcacagacacagagacaatlgltgagcaaaagcaagcatctgc	2100
Db	2041	TATTGAGACTTATATCTGTGCCACAGACACAGACAAATAGTGAGCAAAAGCAAGT	2100
QY	2101	ccctacctctggggaggtgtaacagtlctctcatgtaagacgtgcgaagaataataataagca	2160
Db	2101	CCCTACCTCTGGGAGGTGAACAGTTTCTCATGTGAAGACGTGCAGAAATAATTAAGCA	2160
QY	2161	gccaacttaaacccagctgcgtgaagaagaagaataaacaacatcttgagaagatgtgcgc	2220
Db	2161	GCCAACTTAAACCAGAGTGTCTGAAGAAAGAAAGAAATAACCACTTTCTTGAAGAT	2220
QY	2221	agcatcccttaacaagggccaactccctctagcgcgccctctgtctctcatcgtgtgccga	2280
Db	2221	AGCATCCCTTAAACAAGGCCACACTCCAGAGGCCCTCTGCTGCATCTGTCGGGAG	2280
QY	2281	cccccaagcccgagtlcttccaagcctccctccctccatcagtaacagcgtctgaactgacct	2340
Db	2281	CCCCAAGCCCGAGTCTTCTCCAAAGCCCTCTCTCCATCACTCAACAGCTGCAGCTG	2340
QY	2341	gacctgcctcccgtaaatctctctgttgtaactcgaagcttgaaacccctcttgctccaagct	2400
Db	2341	GCCTGCTCTCCGTAATCGTCTCTGTGTGTAACCTTGAAACCTCTTGGTCTCAGCT	2400
QY	2401	ccagaagaagaatlgagaaggaagaactagcttlaacaggaagatctlggaaggagcaagtcttc	2460
Db	2401	CCAGAAAGGAATGAGAGAGGAACATAAGTCAACGAGAACTTGGAGGGGACAGTTC	2460
QY	2461	ctcagaaggaaagggcctccacgctccagagagaatctcagaagtgaggatctcagaagg	2520
Db	2461	CTCAGAGGAAGGGCGCTCCACGTCACAGAGAAATTCAGAGGTGGGAGCTGCAGGGAG	2520
QY	2521	tgggaagcgtctggagcttbaagaggtgtcttgaaagacagaagaagtggaagaaggagctgaa	2580
Db	2521	TGGGAGCCTTGGGCTGAGAGGGGTGCTGAAGGCAAGAAAGGTGAAGAGGCAGAGCTGA	2580
QY	2581	gcctgccagaatgtctgtcttaacagggcctgggaagtlcttcgcttgctctctgtgac	2640

Db 2581 GCTCCCGAGATGTTTCAGTGTGTTTCACGGGCTGGAGTTTCCGTTGCTTCGTGAGC 2640  
Oy 2641 ccttltatcttctctgcttggaggaagaagtcataatcaatgaagggaatgcagtttc 2700  
Db 2641 CTCTTTATCTTTCTCTGCTTGGAGGAGAAAGATCTATTTCATGAAGGAGTGCAGTTTC 2700  
Oy 2701 ataaagtcagctgtctaaatccaggggtgtgcatgggtttctcttccatcagaagcccttat 2760  
Db 2701 ATTAAGTCAGCTGTGTTAAATTCACAGGGGTGTGCATGGGTTTCTTCACGAAGGCCCTTAT 2760  
Oy 2761 ttaatgggaatataggagcagagctcatcttccatggccgttaattcaacggaagaagagac 2820  
Db 2761 TTATTTGGGAATATAGGAAGCAGCTCATTTCTTAGGCCGTTAATTCACGGAAGAAGTAC 2820  
Oy 2821 tggagcttcttcttctcatgtcttcttggcaactactcagccctgtgggtgagcttgcgtta 2880  
Db 2821 TGGAGTCTTTTCTTCATGTCTTGTGGCAACTACTCAGCCCTTGGTGGATGGCTTGA 2880  
Oy 2881 tgcagaacggtcgaaaacacttgaaatcaagagagactcggcttcttcttctggttccatc 2940  
Db 2881 TGCAGAAGCGTCGAAACCTTGGAATCAGAGACTCGGTTTCTTCGTGTTGCTGCATT 2940  
Oy 2941 ggttggcgtgtgagaccgttgggcaagtgctctcttcccttggggcacaatgcttcttgc 3000  
Db 2941 GGTGGCTGTGTGCAGCCGTGGCAAGTGTCTCTCTCCCTGGGCCATAGTCTCTGTCT 3000  
Oy 3001 ataaagacccttgcagcttctgctgtcttcttgcagacacttccctgtgattcttctgtgaggg 3060  
Db 3001 ATTAAGACCTTGTGAGCTCTGTGTGTGTGAACTCTTCCCTGTGATTCCTGTGAGAGGG 3060  
Oy 3061 ggtatgtctgaaaggggaagagagcagagcttgagagacttgaaacagggaggttgagagg 3120  
Db 3061 GGATGTTGAAGGGGAGGAGGAGGAGAGAGCTGTGAGAGCTGAGCCACAGGGAGGTGAGGG 3120  
Oy 3121 ggaacaggaagcagagcagagcaggtgtgtctcatcagttcttctatgatacgttcaagctc 3180  
Db 3121 GGACAGGAAGGACAGCGAAGAGCTGTGTGTCTCATCACTCTCATGATACAGCTAGACTC 3180  
Oy 3181 caagaccgagagcacaatgtcttcaaggaaatcgaatgaacccaacagccacatcttccct 3240  
Db 3181 CAGGACCGAGGACGACCAATGCTTCAGGAAGCTCAATGAATGAACCCACAGCCACATTTTCT 3240  
Oy 3241 tccctaaagcttgaacaaatgtcctcaatlaacaaaaagaatgcagagactaactgtct 3300  
Db 3241 TCCCTAAAGCATTAACAATGTGCATTTGCCAATACCAAAAAGAAATGCGAGACATAACTGCT 3300  
Oy 3301 ggtcagcttctgtcctgtgacatcacaacttggccagagcaggttgaaaaatgcagagattg 3360  
Db 3301 GGTAGCTTTTGCTGTGCATTTCAAAAAGTGGGCCAGAGCAAGTGGAATAATGCCAGAGATTG 3360  
Oy 3361 ttaaaccttctcaacccttgcacagcaccacagcagctcgaagctgagctgtgcagacgcg 3420  
Db 3361 TTTAACTTTTACCCCTGACCAAGCACGCCACGAGCTCAGACGTGCTGACAGCACGG 3420  
Oy 3421 agtgcacctgcagcgccaggggaggaagaagaagaagaggggaatgctgtatgagcaagaag 3480  
Db 3421 AGTGACCTCGACGCGAGGGGAGAGAAAGAAAGAGAGGAGTGTATGACGAAGAAG 3480  
Oy 3481 acagatcattcaaggcaggtgggaattgacacacaggaattatagtcacacgtatcctgtg 3540  
Db 3481 ACAGATTTCAATTCAGGGCACTGGGAATTGACCAAGGATTTATGTCCACAGTATCTCTGG 3540  
Oy 3541 gtcttaagagcagggctatattgttggggggaaaaaatcagttcagaagggaagtcgggag 3600  
Db 3541 GTCTTAGAGAGCAGGGCTATATTGTGGGGGAAAAATCATGTTCAAGGGAGAGCGGAGAG 3600  
Oy 3601 ccgtgattcttaataactatatttctcttaacagctgagtaattctgtgagcaagtcacaag 3660  
Db 3601 CCTGATTTCTAAATATATATTTTCTTTACAAAGCTGAGTAATTCGAGCAATGTCAAG 3660  
Oy 3661 gtagtaacagagcgttgaagataactagtttctcttcttggaaactcttcttctgt 3720

Db 3661 GTACTAACTAGGCTGTAAAGATTACTTAATTTCTCTTATTTAGAACTCTTTTCTCTGT 3720  
Oy 3721 ggaattagcagcaagaagggcaatccgcttcttcttaacagaagaacaatctcctaagag 3780  
Db 3721 GGATTTAGCAGCACAAAGGCAATCCGTTTCTTTTAACAGSAGAAACATTCCTAAGAG 3780  
Oy 3781 taaagccaacagatccaagctagtgctgtgactatataatgattgttcttgaaaaat 3840  
Db 3781 TAAAGCCAAACAGATTCAGGCTGTGTGCTGACTATATATGATTTGTTTGAATAAT 3840  
Oy 3841 cattagcgatgtttactatcttgaatccaataatgagactagtaaccttgttccgctg 3900  
Db 3841 CATTTAGCAGATGTTTACTATCTGATTCAGAAATGAGACTAGTACCTTTGGTCACTG 3900  
Oy 3901 taaacaacacccagctgttaattgtcacaagttcaagcttaactgcagaaaccaatcaa- 3959  
Db 3901 TAAACAACACCCATTTGTAAATGTCTCAAGTTTCAGGCTTAACCTGCAAGAACATCAAT 3960  
Oy 3960 aagaatagaatcctttagagaacatgttcttccacatctggaggtgagtcgtgcaggg 4019  
Db 3961 AAGAATAGAACTTTAGAGCAACTGTGTTCTCCAC-TCGTGAGGTGAGTGTGCCAGG 4019  
Oy 4020 cagtttggaaatatctactccaagatctgacacgtgtgtgttatataacaataaag 4079  
Db 4020 CAGTTTGGAAATATTTACTTCACAAAGTATGACAGTGTGTGTGATTAACAACATAAG 4079  
Oy 4080 tgcctcaagagcaatcatatccaagtggtcttaagcttaactcttcagatttggatata 4139  
Db 4080 TTGCTCAAAAGCATCTTTATTCAGTGGCTTAAAGTTACTTGTGACATTTTGGTATA 4139  
Oy 4140 tctatgtcattctgcacttgccttcttcttcttcttcttcttcttcttcttcttcttctt 4199  
Db 4140 TTTATTTGGCTATTTGCCATTTGCTTTTGTCTTCTTCTTGGGTTTATTAATTAAGCA 4199  
Oy 4200 gggatattaaccttaacagcttcagaagaagccgtgaatttgaatgaagaaaaatataact 4259  
Db 4200 GGGATATTATTAACCTTACAGTCCAGAAAGCCGTGAATTTGAATGAGAAATAATACGTTT 4259  
Oy 4260 ttgttcttcaacacttcaactaaatcttaacatcttcaactctgcgaatagaagcattaa 4319  
Db 4260 TTTATTTTACCACCTTCTACTAATTTAATTAATTTATTCATTGGGAATAGAGCCATTA 4319  
Oy 4320 actcaaatgtgtaataacagtlaccgtgalttgcatacttaacaaatgaataatcagaact 4379  
Db 4320 ACTCAAAAGTGTATTAAGAGTACCTGTGATTTGTATTACCAATGAAATCACAGACAT 4379  
Oy 4380 ttatactatataacagttgttgcagatcgttgtaagtgaaatatttcttactcaaacact 4439  
Db 4380 TTTATCTATATTACAGTTGTGTGCAGGTACGTTGTAAGTGAATATTTATCTCAAACT 4439  
Oy 4440 acttgaatctgaacccctcctgcgtgaltctgttcttcaacatataataaactgtttaa 4499  
Db 4440 ACTTTGAATTAACCTCCGCTGAGATCTTGTTTTAACATATTAATTAACATGTTTAA 4499  
Oy 4500 aatttgaatatttgaataatcatalctatcaatctgttcttcttgaatcatalatt 4559  
Db 4500 AATTTGATATTTTGATTAATCATATTATTCATTTGTTCTTCTTGAATCTATATTT 4559  
Oy 4560 tatatttgaataaaccttcttgcagaagaagttccccaatctcaacaaatgagttctgt 4619  
Db 4560 TATATTTTGAATAACATCTTCTTGAGAGAGATGCCCAATTTACCAATAGAGTTCTTGG 4619  
Oy 4620 gcatgcacacacacagatlaagaactgalttgaaggtctaacattgacattgtgtccctgag 4679  
Db 4620 GCATGCACACACACAGTAAGACTGATTTAGAGGCTTAACATTTGACATTTGGTGTGAG 4679  
Oy 4680 atgcaagactgaaatagaagtlctcccaagatacacagttgttctttaaagctaggggt 4739  
Db 4680 ATGCAAGACTGAAATTAGAAAGTTTCCCAAGATACACAGTTGTTTAAAGCTAGGGGT 4739  
Oy 4740 gagggggaaatctgcgcttctataggaatgtcttcccttggagcctgtgtaaggtgtct 4799  
Db 4740 GAGGGGGAAATCTGCGCTCTTATAGGAATGCTCTCCCTGAGGCTGTGATGGGTGCTGT 4799



```

OY 4800 cctgtgtctcgtcgtcgtgtatatttctctgtccctgcacgtccttaaggactgtt 4859
Db 4800 cctgtgtctcgtcgtcgtgtatttttctgtccctgcacgtccttaaggactgtt 4859
OY 4860 tggatctccagttccctaaagtagtgacctgcagcagtgcaagttctcaatggattgcaga 4919
Db 4860 tggatctccagttccctaaagtagtgacctgcagcagtgcaagttctcaatggattgcaga 4919
OY 4920 gtgaatggaaatataaactagaataatataccctgttgaatcagacaccagtagtccctg 4979
Db 4920 gtgaatggaaatataaactagaataatataccctgttgaatcagacaccagtagtccctg 4979
OY 4980 gtgtcaagtgctgtacgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 5023
Db 4980 gtgtcaagtgctgtacgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 5023

RESULT 10
US-09-227-881-2
: Sequence 2, Application US/09227881
: GENERAL INFORMATION:
: APPLICANT: Nguyen, Thai D.
: APPLICANT: Polansky, Jon R.
: APPLICANT: Chen, Pu
: APPLICANT: Chen, Hua
: TITLE OF INVENTION: Nucleic Acids, Kits, And Methods For The Diagnosis, Prognosis And
: CURRENT APPLICATION NUMBER: US/09/227,881
: CURRENT FILING DATE: 1999-01-11
: EARLIER APPLICATION NUMBER: US 08/938,669
: EARLIER FILING DATE: 1997-09-26
: NUMBER OF SEQ ID NOS: 36
: SOFTWARE: Microsoft Word 97
: SEQ ID NO 2
: LENGTH: 5304
: TYPE: DNA
: ORGANISM: Homo sapiens
US-09-227-881-2

Query Match 72.6%, Score 4476; DB 16; Length 5304;
Best Local Similarity 99.8%, Pred. No. 0;
Matches 5016; Conservative 0; Mismatches 6; Indels 2; Gaps 2;

OY 1 atcttgtctcagtttactctcagggtctattatgaatagaatagaataccaatgtgaag 60
Db 1 atcttgtctcagtttactctcagggtctattatgaatagaatagaataccaatgtgaag 60
OY 61 tccctaacaacgtatagctccatccatcggatgtagtctcttggcagatgataaagaatca 120
Db 61 tccctaacaacgtatagctccatccatcggatgtagtctcttggcagatgataaagaatca 120
OY 121 ggaagaaaggagatccacgcttagccaagtgctcaggctgtgtctgtctcttatttagtga 180
Db 121 ggaagaaaggagatccacgcttagccaagtgctcaggctgtgtctgtctcttatttagtga 180
OY 181 cagatgtgtctctcgtacaggaagctatttcttcagagaaatcaatcaatcatatggtcaatc 240
Db 181 cagatgtgtctctcgtacaggaagctatttcttcagagaaatcaatcaatcatatggtcaatc 240
OY 241 catcaacaacagaggtcacaagaacagaatgagaatgggcacttgcacaaagaaaaatgcag 300
Db 241 catcaacaacagaggtcacaagaacagaatgagaatgggcacttgcacaaagaaaaatgcag 300
OY 301 gagagcaaatatgtagtgaataataactttcccttgtttttaaatttcagaaaaaatg 360
Db 301 gagagcaaatatgtagtgaataataactttcccttgtttttaaatttcagaaaaaatg 360
OY 361 atgagagcaaaaataatgaataagaaaaacagctcagaaaaaaaatgtttccaattgg 420
Db 361 atgagagcaaaaataatgaataagaaaaacagctcagaaaaaaaatgtttccaattgg 420
OY 421 taattcaagttatttctctccttggaaagagaccctccatgttagagcttgaatggaaaaatcggaa 480

```

Db	421	taataagtaattctgtccctctgggaagagacatcccaatgtagcctctgtatgggaaaaatgggaaa	480
Oy	481	aaacgtcaaaaagcgtatgaatcgtatcaatgccaaaagctggaattatcatattcttaaaaaccagatt	540
Db	481	aaacgtcaaaaagcgtatgctatgcatcagatccccaagtggaattatcatattcttaaaaaccagatt	540
Oy	541	ggcatcaactctgggagagcaagttctaggaagttcatgttatgccaagaacataacaataac	600
Db	541	ggcatcaactctgggagagcaagttctaggaagttcatgttatgccaagaacataacaataac	600
Oy	601	agcaaaatcctaaatctccgcgaatctgcagagaaaatggggagcgggaagaagctttctaaac	660
Db	601	agcaaaatcctaaatctccgcgaatctgcagagaaaatggggagcgggaagaagctttctaaac	660
Oy	661	agttatataggagcagtttgacatctgtctcgaaacaacatcccccgtctaatacaaggaacacaaaaa	720
Db	661	agttatataggagcagtttgacatctgtctcgaaacaacatcccccgtctataccagggaaacaaaaa	720
Oy	721	atctgacttggtgctaaagccttgacattctcaagggaaatatagtaaaaacatgagagcaaaacaaaa	780
Db	721	atctgacttggtgctaaagccttgacattctcaagggaaatatagtaaaaacatgagagcaaaacaaaa	780
Oy	781	gacatgtgttaaaaagcgcaaacgaacatcttgtagcctttcaagaagcaagagtgcccccttagca	840
Db	781	gacatgtgttaaaaagcgcaaacgaacatcttgtagcctttcaagaagcaagagtgcccccttagca	840
Oy	841	ggagcccttgaaagcatttgcccttttgaggagagccagtttctctaaagaaatcttaagaaacc	900
Db	841	ggagcccttgaaagcatttgcccttttgaggagagccagtttctctaaagaaatcttaagaaacc	900
Oy	901	ctgaaaagatcatgaattcttaaccaattttaagatataaaaacaataatgcatatgcaataacag	960
Db	901	ctgaaaagatcatgaattcttaaccaattttaagatataaaaacaataatgcatatgcaataacag	960
Oy	961	ttttagacaatgggtcccaattttataaagtcgaagcatacaaggtatacgtgtgtcccaatccc	1020
Db	961	ttttagacaatgggtcccaattttataaagtcgaagcatacaaggtatacgtgtgtcccaatccc	1020
Oy	1021	ggatagagtcagaaaaatcatttaaaaaatcaatctgtgtcccaatccataacttttccagaatgattc	1080
Db	1021	ggatagagtcagaaaaatcatttaaaaaatcaatctgtgtcccaatccataacttttccagaatgattc	1080
Oy	1081	tgctatagcccttcacaacaacagagcccggaatgtagtctgtaacctacaacacacatctataaccaca	1140
Db	1081	tgctatagcccttcacaacaacagagcccggaatgtagtctgtaacctacaacacacatctataaccaca	1140
Oy	1141	gtgacctcaaacatctgtttaaagtgatcatatccagtaagttcccatatacaaatgccaacatccc	1200
Db	1141	gtgacctcaaacatctgtttaaagtgatcatatccagtaagttcccatatacaaatgccaacatccc	1200
Oy	1201	tgtagaagcccatctccgcgtcccaacagaaagtctcccaatctagagctctctgatacatagatt	1260
Db	1201	tgtagaagcccatctccgcgtcccaacagaaagtctcccaatctagagctctctgatacatagatt	1260
Oy	1261	tacaacccgaagagctccgttgaaaggtgaaaggtctgtctcttaacactaacctgtatgctctac	1320
Db	1261	tacaacccgaagagctccgttgaaaggtgaaaggtctgtctcttaacactaacctgtatgctctac	1320
Oy	1321	acctgtagctcaatctgcgaacatctgtccccaagttctcaagaaattctccctgtctcagctccc	1380
Db	1321	acctgtagctcaatctgcgaacatctgtccccaagttctcaagaaattctccctgtctcagctccc	1380
Oy	1381	cgcgtaagtttggaactataagagcgacacgcgcggctcaattttctgattctgattagaaagttagg	1440
Db	1381	cgcgtaagtttggaactataagagcgacacgcgcggctcaattttctgattctgattagaaagttagg	1440
Oy	1441	gtttacaacatatgagcccggtgtgtctcttgaaactctgaactctcaagtgatccaacacacccc	1500
Db	1441	gtttacaacatatgagcccggtgtgtctcttgaaactctgaactctcaagtgatccaacacacccc	1500
Oy	1501	agcctctctaaagtgctgggaattaaaggcatgagttcaacgcgcgcgcgcgcgaaggtctcagtg	1560



Qy	3721	ggaglttagcagccaaaggccaatccggcttctttaaagaagaacaatctctaag	3780
Dp	3721	ggaglttagcagccaaaggccaatccggcttctttaaagaagaacaatctctaag	3780
Qy	3781	taaaagccaacagatctcaagccaggtctctgcagcatatagatggcttttgaanaat	3840
Dp	3781	taaaagccaacagatctcaagccaggtctctgcagcatatagatggcttttgaanaat	3840
Qy	3841	catctcagcgagcttcttaactctcgaattcgaagaaatagaactgatacccttgcagctg	3900
Dp	3841	catctcagcgagcttcttaactctcgtctcgaagaaatagaactgatacccttgcagctg	3900
Qy	3901	taaaacaacacccagctgtataaactgtctcaaggtcttaacgtcagaaaccaatcaaa-	3959
Dp	3901	taaaacaacacccagctgtataaactgtctcaaggtcttaacgtcagaaaccaatcaaa-	3960
Qy	3961	aaagataagaaattcttagaggaagaactgttcttccaacatctggaagtgaagcttcgcaag	4019
Dp	3961	aaagataagaaattcttagaggaagaactgttcttccaacatctggaagtgaagcttcgcaag	4019
Qy	4020	cagctttagaataatttaactccaagaattatggaacacgtgtgtgtgtatcaacaataag	4079
Dp	4020	cagctttagaataatttaactccaagaattatggaacacgtgtgtgtgtatcaacaataag	4079
Qy	4080	ctgcctcaaaaggcaatcatataattcaagctgagctaaagttaactctcgacagtttggta	4139
Dp	4080	ctgcctcaaaaggcaatcatataattcaagctgagctaaagttaactctcgacagtttggta	4139
Qy	4140	tttaactgagccatgccaattgctcttttgtttttctctcttgggttataatgtaaga	4199
Dp	4140	tttaactgagccatgccaattgctcttttgtttttctctcttgggttataatgtaaga	4199
Qy	4200	gggaattctaaacctaagctccagaagaagccttggaatttgaaggaagaaataataactt	4259
Dp	4200	gggaattctaaacctaagctccagaagaagccttggaatttgaaggaagaaataataactt	4259
Qy	4260	ctgcttcttaacacgcttctaacttaaaatttaacaatttatccaacttgcgaataagaccata	4319
Dp	4260	ctacttttaacacgcttctaacttaaaatttaacaatttatccaacttgcgaataagaccata	4319
Qy	4320	actcaaaagtgtataaagtaaccgttgatcttgcaattacaatagaacaacacagacat	4379
Dp	4320	actcaaaagtgtataaagtaaccgttgatcttgcaattacaatagaacaacacagacat	4379
Qy	4380	cttaataataataaagcttctgcgaataagctgtgaagaataatttaactccaact	4439
Dp	4380	cttaataataataaagcttctgcgaataagctgtgaagaataatttaactccaact	4439
Qy	4440	actctgaatactagaacccctcgagctgctctgttctttaaataataaaagctttaa	4499
Dp	4440	actctgaatactagaacccctcgagctgctctgttctttaaataataaaagctttaa	4499
Qy	4500	aaatttgataatttgataatcatatctcaatctatcatatttctcccttgtaactcatatt	4559
Dp	4500	aaatttgataatttgataatcatatctcaatctatcatatttctcccttgtaactcatatt	4559
Qy	4560	taataatttgaaaaacaacttctcgaagaagaagctccccaatttcccaattgagaggtcttg	4619
Dp	4560	taataatttgaaaaacaacttctcgaagaagaagctccccaatttcccaattgagaggtcttg	4619
Qy	4620	gcaatgcacacacagataagataagacagatcttaagagctataacaattgacatctgctcgag	4679
Dp	4620	gcaatgcacacacagataagataagacagatcttaagagctataacaattgacatctgctcgag	4679
Qy	4680	atgcgaagatcgtaaaatttagaaaagctctccccaagaatatacaagcttgctttaaagctlaggt	4739
Dp	4680	atgcgaagatcgtaaaatttagaaaagctctccccaagaatatacaagcttgctttaaagctlaggt	4739
Qy	4740	gaaggagggaatactcgagcttctaataaggaatgctccctcggaagccttgtaagtgagcgt	4799
Dp	4740	gaaggagggaatactcgagcttctaataaggaatgctccctcggaagccttgtaagtgagcgt	4799
Qy	4800	cctctgcttctcgctggctgtataatttctctctgctcccttgcagctcttaagaagactgtct	4859

[illegible]

QY 481 aaacgctaaagcatgacatcgtatcagaatcccaagtggaattatatttaaaacagat 540  
|||||  
Db 481 aaacgctaaagcatgacatcgtatcagaatcccaagtggaattatatttaaaacagat 540  
QY 541 ggcatacctctgggaggaagcaagttcagaaggtcattgtctgcagaaggaactaaacaatac 600  
|||||  
Db 541 ggcatacctctgggaggaagcaagttcagaaggtcattgtctgcagaaggaactaaacaatac 600  
QY 601 agcaaaaacaaaatcccgcaaatgcagaggaataatggaggaactgggaagcttctcaaac 660  
|||||  
Db 601 agcaaaaacaaaatcccgcaaatgcagaggaataatggaggaactgggaagcttctcaaac 660  
QY 661 agtgaataggcaagtctgacaaatgtctgcacaacactcccgctctataaccaagggaacaaaa 720  
661 agtgaataggcaagtctgacaaatgtctgcacaacactcccgctctataaccaagggaacaaaa 720  
QY 721 atcgacatgggcttaagaccttgagatcttcaagggaataatagaaaactctggaacaaaacaaa 780  
|||||  
Db 721 atcgacatgggcttaagaccttgagatcttcaagggaataatagaaaactctggaacaaaacaaa 780  
QY 781 gacatggcttaaaaggcaaacagaaacattgtgagccttcaaaagcagctgcctctcagca 840  
|||||  
Db 781 gacatggcttaaaaggcaaacagaaacattgtgagccttcaaaagcagctgcctctcagca 840  
QY 841 gggaacccctggagcatctgacctttagagagggccagtttcttaaggaaacttaaggaaactc 900  
841 gggaacccctggagcatctgacctttagagagggccagtttcttaaggaaacttaaggaaactc 900  
QY 901 ctgaagaacatgaattttaaacaattttaaagaataaaacataatgagatgacataacag 960  
|||||  
Db 901 ctgaagaacatgaattttaaacaattttaaagaataaaacataatgagatgacataacag 960  
QY 961 cttaagacaatgggtcccaattttaaagaatcaggaatatacaagaaataaagctgccagctcc 1020  
|||||  
Db 961 cttaagacaatgggtcccaattttaaagaatcaggaatatacaagaaataaagctgccagctcc 1020  
QY 1021 ggaataggctcagaataatcattgaagaaatcaactgtctcccaatccatactttcagaatgac 1080  
|||||  
Db 1021 ggaataggctcagaataatcattgaagaaatcaactgtctcccaatccatactttcagaatgac 1080  
QY 1081 tgcataatggccttcaacacagagcccgatgtgtctgaacatcaaacacacatacgaatgaatc 1140  
|||||  
Db 1081 tgcataatggccttcaacacagagcccgatgtgtctgaacatcaaacacacatacgaatgaatc 1140  
QY 1141 gtgcctcaaaccaattgttaaaagtgtcaatctcagtaggtcccaatacaaatgcacccctccc 1200  
|||||  
Db 1141 gtgcctcaaaccaattgttaaaagtgtcaatctcagtaggtcccaatacaaatgcacccctccc 1200  
QY 1201 tgtgcagagccatcccgctccaagagaatctcccaactctagaactctgtcatcagatgt 1260  
|||||  
Db 1201 tgtgcagagccatcccgctccaagagaatctcccaactctagaactctgtcatcagatgt 1260  
QY 1261 taagaacagagaagctccgtgaagggtgaagggtctgtcttaacactccctgtatagctctac 1320  
|||||  
Db 1261 taagaacagagaagctccgtgaagggtgaagggtctgtcttaacactccctgtatagctctac 1320  
QY 1321 acctgagctcaactgcgaacactctgcctcccaaggttcaagcaactctctctcagctccc 1380  
|||||  
Db 1321 acctgagctcaactgcgaacactctgcctcccaaggttcaagcaactctctctcagctccc 1380  
QY 1381 cggctagcttgagcaatcagagcgacgcccggtaattcttctgatatgttagtagagatggg 1440  
|||||  
Db 1381 cggctagcttgagcaatcagagcgacgcccggtaattcttctgatatgttagtagagatggg 1440  
QY 1441 gtttcaacatattagccggctgtgtcttgaacactcgaactcagatgatacccaacccctc 1500  
|||||  
Db 1441 gtttcaacatattagccggctgtgtcttgaacactcgaactcagatgatacccaacccctc 1500  
QY 1501 agcctcctaaggtctggagattacaggaatgaatgcagcgcccggcagaaggtcagtg 1560  
|||||  
Db 1501 agcctcctaaggtctggagattacaggaatgaatgcagcgcccggcagaaggtcagtg 1560

QY 1561 ttaataaggaataacttgaatggcttacttaaaccaacagaggaacacagacaagaactgtga 1620  
|||||  
Db 1561 ttaataaggaataacttgaatggcttacttaaaccaacagaggaacacagacaagaactgtga 1620  
QY 1621 taatttcaaggattcttggagatggggaatgtgcattgagctgcctgacctagctccagac 1680  
|||||  
Db 1621 taatttcaaggattcttggagatggggaatgtgcattgagctgcctgacctagctccagac 1680  
QY 1681 cactgtgctccatcaacttctcccatcctcatcttctcaaggcttaagttacattat 1740  
|||||  
Db 1681 cactgtgctccatcaacttctcccatcctcatcttctcaaggcttaagttacattat 1740  
QY 1741 caacatgcttctgtggaagctccacatctgtactgaataaagatatataaactag 1800  
1741 caacatgcttctgtggaagctccacatctgtactgaataaagatatataaactag 1800  
Db 1741 caacatgcttctgtggaagctccacatctgtactgaataaagatatataaactag 1800  
QY 1801 ttccatttggggcacaatgtgtgtgtataggggggagagatatcccaagactcct 1860  
|||||  
Db 1801 ttccatttggggcacaatgtgtgtgtataggggggagagatatcccaagactcct 1860  
QY 1861 tgaagcccccggcagaggttctcctcccaagtggggagccctgcagaagcccggtgcc 1920  
|||||  
Db 1861 tgaagcccccggcagaggttctcctcccaagtggggagccctgcagaagcccggtgcc 1920  
QY 1921 tgggtgtcctgagcaaacctgcagccgtgcacatggtgtgttctgtatcaactctcag 1980  
1921 tgggtgtcctgagcaaacctgcagccgtgcacatggtgtgttctgtatcaactctcag 1980  
Db 1921 tgggtgtcctgagcaaacctgcagccgtgcacatggtgtgttctgtatcaactctcag 1980  
QY 1981 gacctgtgcttctctatcttctgtgtgacctgtcatctccagggatcatctgaacat 2040  
|||||  
Db 1981 gacctgtgcttctctatcttctgtgtgacctgtcatctccagggatcatctgaacat 2040  
QY 2041 tatgtgtaactataatctgcacagacacagagaacaataatgtatagcaagctcacatgc 2100  
|||||  
Db 2041 tatgtgtaactataatctgcacagacacagagaacaataatgtatagcaagctcacatgc 2100  
QY 2101 cctaactcgttggaggtgagcaagttctcattgaaagcgtgcagaagaataatataagca 2160  
|||||  
Db 2101 cctaactcgttggaggtgagcaagttctcattgaaagcgtgcagaagaataatataagca 2160  
QY 2161 gccaaacttaaacccatgtcgtgaagaagaagaataaaacacactctgaagaattgtgcgc 2220  
|||||  
Db 2161 gccaaacttaaacccatgtcgtgaagaagaagaataaaacacactctgaagaattgtgcgc 2220  
QY 2221 agcatcctttaaacaagccacactcccttaagcgcctctgtccctccatctgtccggagag 2280  
|||||  
Db 2221 agcatcctttaaacaagccacactcccttaagcgcctctgtccctccatctgtccggagag 2280  
QY 2281 ccccaagcccgagctctccaagctcctcctccatcaatgtaacagcgtgcagctgcct 2340  
|||||  
Db 2281 ccccaagcccgagctctccaagctcctcctccatcaatgtaacagcgtgcagctgcct 2340  
QY 2341 gctctgctcccggtgaatgctcgtgtgtgtatctgagcttggaactcctgtgctccagct 2400  
|||||  
Db 2341 gctctgctcccggtgaatgctcgtgtgtgtgtatctgagcttggaactcctgtgctccagct 2400  
QY 2401 ccagaaaggaataatgaggaaggaagaaactagcttaacggaagatctgagggaggaagcttcc 2460  
|||||  
Db 2401 ccagaaaggaataatgaggaaggaagaaactagcttaacggaagatctgagggaggaagcttcc 2460  
QY 2461 ctcaagaggaagaagggtcctccacgtctcaagagaatctcaagaggtgaggagctgcagagag 2520  
|||||  
Db 2461 ctcaagaggaagaagggtcctccacgtctcaagagaatctcaagaggtgaggagctgcagagag 2520  
QY 2521 tggggagcgtctggggtctgaaagcgtctgaaagcaggaaggtgaaagggcagagctgaa 2580  
|||||  
Db 2521 tggggagcgtctggggtctgaaagcgtctgaaagcaggaaggtgaaagggcagagctgaa 2580  
QY 2581 gctgcccagaatgtcaaggtgtgttcaaggggcttggaaggttccgtgtgtctgtgaac 2640  
|||||  
Db 2581 gctgcccagaatgtcaaggtgtgttcaaggggcttggaaggttccgtgtgtctgtgaac 2640  
QY 2641 cttttatcttctctctgtgtgagaggaagatctaatctgaagagatgcagttcc 2700

Dh	2641	ctcttctatcttctctctgctcgagaggaagctatcttcaatgaaagggatcgacgttcc	2700
Oy	2701	ataaagtcagctgtataaattccagggctgctgaatggttcttccctccacgaagcccttat	2760
Dh	2701	ataaagtcagctgtataaattccagggctgctgaatggttcttccctccacgaagcccttat	2760
Oy	2761	ttaaatggaaataatggaaagcagctcatcttccctagccgttaattcaaggaaagatgac	2820
Dh	2761	ttaaatggaaataatggaaagcagctcatcttccctagccgttaattcaaggaaagatgac	2820
Oy	2821	tggagctcttctcttcatagctctctctgagcaactccagccctgctggtgagactgacta	2880
Dh	2821	tggagctcttctcttcatagctctctctgagcaactccagccctgctggtgagactgacta	2880
Oy	2881	tgcagaagcgtctgaaataaccttggaaatcagaagactcggcttctctctctgcttgcata	2940
Dh	2881	tgcagaagcgtctgaaataaccttggaaatcagaagactcggcttctctctctgcttgcata	2940
Oy	2941	ggtctggcgtctgagccgtgggccaagtgtctctcttcccttgaggccaatgcttctctgct	3000
Dh	2941	ggtctggcgtctgagccgtgggccaagtgtctctcttcccttgaggccaatgcttctctgct	3000
Oy	3001	ataaagaccccttgcagctctcctgctctctctgtaaaacattccctctgagcttctctgct	3060
Dh	3001	ataaagaccccttgcagctctcctgctctctctgtaaaacattccctctgagcttctctgct	3060
Oy	3061	ggaatcttgagaggggaaaggaagcagacgtctgagacagcttgcacacaggggaggtgaggg	3120
Dh	3061	ggaatcttgagaggggaaaggaagcagacgtctgagacagcttgcacacaggggaggtgaggg	3120
Oy	3121	ggacaagagagggcagagcaaaacttggtctcatcagctccatcagctgaatcagaagctc	3180
Dh	3121	ggacaagagagggcagagcaaaacttggtctcatcagctccatcagctgaatcagaagctc	3180
Oy	3181	caggagccagagccacaatctgctcagagaaactcatatgaaccacaacagccacatttctct	3240
Dh	3181	caggagccagagccacaatctgctcagagaaactcatatgaaccacaacagccacatttctct	3240
Oy	3241	tcacctaaagcatalagacaatctgcaatttgcacaataacaaaagaatgagagctaaatctgtc	3300
Dh	3241	tcacctaaagcatalagacaatctgcaatttgcacaataacaaaagaatgagagctaaatctgtc	3300
Oy	3301	ggtagccttctgcccggagcttcaaaaactgggccagagcaagtggaaatctgcacagatctg	3360
Dh	3301	ggtagccttctgcccggagcttcaaaaactgggccagagcaagtggaaatctgcacagatctg	3360
Oy	3361	ttaaacttctacaccctgagccagccacccacagctcagcagtgacgtctgacagcagcg	3420
Dh	3361	ttaaacttctacaccctgagccagccacccacagctcagcagtgacgtctgacagcagcg	3420
Oy	3421	agtgagccctgcagcgagggaggaagaaagaagagagatgataatgagcaagaag	3480
Dh	3421	agtgagccctgcagcgagggaggaagaaagaagagagatgataatgagcaagaag	3480
Oy	3481	acagatctcatcagaagggcagctgggaaatctgacccaagggatctaaatccacgtgaccccg	3540
Dh	3481	acagatctcatcagaagggcagctgggaaatctgacccaagggatctaaatccacgtgaccccg	3540
Oy	3541	gtctctaaagagccagggcatalctgtggggggaaaaaalcagcttcaaggagaaatctcgagga	3600
Dh	3541	gtctctaaagagccagggcatalctgtggggggaaaaaalcagcttcaaggagaaatctcgagga	3600
Oy	3601	ccctgattctcaatactatatttctcccttacaagcttgagtaattctcgagcaagtacacag	3660
Dh	3601	ccctgattctcaatactatatttctcccttacaagcttgagtaattctcgagcaagtacacag	3660
Oy	3661	gtagtaactggagcctgtaagaattactagttctcctctaataggaaccttttctctgtc	3720
Dh	3661	gtagtaactggagcctgtaagaattactagttctcctctaataggaaccttttctctgtc	3720
Oy	3721	ggagctaaagcacaagggcaatcccgcttctcttcaacaggaagaaacatctccaaag	3780
Dh	3721	ggagctaaagcacaagggcaatcccgcttctcttcaacaggaagaaacatctccaaag	3780
Dh	3721	ggagctaaagcacaagggcaatcccgcttctcttcaacaggaagaaacatctccaaag	3780
Oy	3781	taaaagccaaacagatctcaagccttagctctgctgactataatgattgtttttgaaaaat	3840
Dh	3781	taaaagccaaacagatctcaagccttagctctgctgactataatgattgtttttgaaaaat	3840
Oy	3841	catctcagcgaatgtcttaatactgataatgagaataatgagactagtaacctttgtgcactg	3900
Dh	3841	catctcagcgaatgtcttaatactgataatgagaataatgagactagtaacctttgtgcactg	3900
Oy	3901	taaacaaacacccagctgtgaaatgtctcaagcttcaagcttcaacgtgcagaaaccaa -	3959
Dh	3901	taaacaaacacccagctgtgaaatgtctcaagcttcaagcttcaacgtgcagaaaccaa -	3959
Oy	3961	aagaatagaatctcttaagagcaactgtgtctccacatctcgagggctgagctgcaggg	4019
Dh	3961	aagaatagaatctcttaagagcaactgtgtctccacatctcgagggctgagctgcaggg	4019
Oy	4020	cagtttggaaaatatttaacttacaagaatctgacactgtgtgtgtgtatataacaaataaag	4079
Dh	4020	cagtttggaaaatatttaacttacaagaatctgacactgtgtgtgtgtatataacaaataaag	4079
Oy	4080	ttgctcaaaagccaatcatatctcaagtgagcttaaaagttaactctcgacagcttctgata	4139
Dh	4080	ttgctcaaaagccaatcatatctcaagtgagcttaaaagttaactctcgacagcttctgata	4139
Oy	4140	tttatgtctatctgccaattgtcttcttcttctctctctgtgtgtttatataatgaaaga	4199
Dh	4140	tttatgtctatctgccaattgtcttcttcttctctctctgtgtgtttatataatgaaaga	4199
Oy	4200	gggattatcaacccttcaacgtccagaagagcctgtgaatttgaaatggagaaataatcatct	4259
Dh	4200	gggattatcaacccttcaacgtccagaagagcctgtgaatttgaaatggagaaataatcatct	4259
Oy	4260	ttatcttcaaccacttctaactaaatttaacatttcatcttcaacttgcagatagagccataa	4319
Dh	4260	ttatcttcaaccacttctaactaaatttaacatttcatcttcaacttgcagatagagccataa	4319
Oy	4320	actcaagctgtataataacagtaactgtgatttctgcatatccaatagaatccaagaact	4379
Dh	4320	actcaagctgtataataacagtaactgtgatttctgcatatccaatagaatccaagaact	4379
Oy	4380	tttaatactataatagctgtctgcagatacgtctgaaatgaaataatataactcaaaact	4439
Dh	4380	tttaatactataatagctgtctgcagatacgtctgaaatgaaataatataactcaaaact	4439
Oy	4440	actttgaaattagaacctctgctgactctgttcttcaacatataataaacaatgtttaa	4499
Dh	4440	actttgaaattagaacctctgctgactctgttcttcaacatataataaacaatgtttaa	4499
Oy	4500	aaatttgatattctgataatcaatattcaatcaacttgcatttcccttctgtaactataat	4559
Dh	4500	aaatttgatattctgataatcaatattcaatcaacttgcatttcccttctgtaactataat	4559
Oy	4560	tatatatttgaanaacattctctcgagaaaggttccccaagatttcaacaaatgaagcttctg	4619
Dh	4560	tatatatttgaanaacattctctcgagaaaggttccccaagatttcaacaaatgaagcttctg	4619
Oy	4620	gcatgacacacacagagtaagaactgtaattagaggtccaacattgacatttggcctgag	4679
Dh	4620	gcatgacacacacagagtaagaactgtaattagaggtccaacattgacatttggcctgag	4679
Oy	4680	atgcagaacttgaatctgaagaagttctcccaagaatcacagctgttctttaaagcctaggggt	4739
Dh	4680	atgcagaacttgaatctgaagaagttctcccaagaatcacagctgttctttaaagcctaggggt	4739
Oy	4740	gaggggggaaaatctgcgcctctatagaagatgccttcccttgagagcctgtgaggtgtcgt	4799
Dh	4740	gaggggggaaaatctgcgcctctatagaagatgccttcccttgagagcctgtgaggtgtcgt	4799
Oy	4800	cctgtgtctgtgcctgagctgtatatttctcctgtccctgtcagctcttaagaagctgtct	4859
Dh	4800	cctgtgtctgtgcctgagctgtatatttctcctgtccctgtcagctcttaagaagctgtct	4859





Oy	3063	a t g t t c g a g a g g a a a g a g a g a g a g a g c t t c g a g a g a g c c a a g a g g a a g t c g a g g g g	3122
Db	3063	a t g t t c g a g a g g a a a g a g a g a g a g c t t c g a g a g a g c c a a g a g g a a g t c g a g g g g	3122
Oy	3123	a c a g a a g a g a g g a a a g a g c t g g g t g c t c c a t a g t c t c c a t a t g a t c a g c t c a g a t c t c a	3182
Db	3123	a c a g a a g a g a g g a a a g a g a g a g a g c t g g a g a g c a g c t g a g c c a a g a g g a g g t c g a g g g g	3122
Oy	3183	g y a c c g a g a g c a a a l y g c t t c a g a a a g c t c a a t g a a c c a a c a g c a a c t t t c t c t c	3242
Db	3183	g y a c c g a g a g c a a a l y g c t t c a g a a a g c t c a a t g a a c c a a c a g c a a c t t t c t c t c	3242
Oy	3243	c c t a g a g a t a g a a a t a g a g c a t t t g c c a a t a a c a a a a g a a t a g c a g a a g a c t a a c t g y g g	3302
Db	3243	c c t a g a g a t a g a a a t a g a g c a t t t g c c a a t a a c a a a a a a a t a g c a g a a g a c t a a c t g y g g	3302
Oy	3303	t a g c t t c t g c t g c a t t c a a a a a c t g g g c o a g a g a g a g t g g a a a a t g c a g a g a t t g c t	3362
Db	3303	t a g c t t c t g c t g c a t t c a a a a a c t g g g c o a g a g a g a g t g g a a a a t g c a g a g a t t g c t	3362
Oy	3363	a a a c t t t c a a c c t g a c c a g a c c a c c a c g a g c t c a g a g t a c t g c t g a c a g a c g a g a g	3422
Db	3363	a a a c t t t c a a c c t g a c c a g a c c a c c a c c a c g a g c t c a g a g t a c t g c t g a c a g a c g a g a g	3422
Oy	3423	t g a c t c t g c a g c g a g g g a g a g a a a a a a a g a g a g g a g t a g t g r a t a g a g a a a a g a c	3482
Db	3423	t g a c t c t g c a g c g a g g g a g a g a g a a a a a a a a a g a g a g a g t a g t g r a t a g a g a a a a a c	3482
Oy	3483	a g a t c t a c t c a a a g a g c a g t g a g a a t t g a a c a a c g a g a t a t a t g t c c a a g t g a t c c t g g t	3542
Db	3483	a g a t c t a c t c a a a g a g c a g t g a g a a t t g a a c a a c g a g a t a t a t g t c c a a g t g a t c c t g g t	3542
Oy	3543	t c t a g a g a g c a g a g c t a t a t t g t g g g g a a a a a a l c a g t t c a a g a g a a g t c o g y g a g a c c	3602
Db	3543	t c t a g a g a g c a g a g c t a t a t t g t g g g g a a a a a a l c a g t t c a a g a g a a g t c o g y g a g a c c	3602
Oy	3603	t g a t t t c t a a t a c t a t a t t t t t c c t t t a c a a g c t g a g t a a t c t c g a a g t c a a a g t	3662
Db	3603	t g a t t t c t a a t a c t a t a t t t t t c c t t t a c a a g c t g a g t a a t c t c g a a g t c a a a a g t	3662
Oy	3663	a g t a a c c g a a g c t g a a g a t a t a c t t a g t t c t c o c t a t a g a a a g c t c t t t c t c t g g	3722
Db	3663	a g t a a c c g a a g c t g a a g a t a t a c t t a g t t c t c o c t a t a g a a a c t c t t t c t c t g g	3722
Oy	3723	a g t a g a g a g a a g a g g c a a t c c c g t t c t t t a a c a g a a g a a a c a t c c t a a g a t a	3782
Db	3723	a g t a g a g a g a a g a g g c a a t c c c g t t c t t t a a c a g a a g a a a a c a t c c t a a g a t a	3782
Oy	3783	a a g c c a a a a c a g a t t c a a g c c t a a g t c t t c g c t a g a t a g a t t g g t t t t t g a a a a t a c a	3842
Db	3783	a a g c c a a a a c a g a t t c a a g c c t a a g t c t t c g c t a g a t a g a t t g g t t t t t g a a a a t a c a	3842
Oy	3843	t t c a a g a g a t a g t a c a t c t g a t c a g a a a t a g a a c t a g a c c t t g y t c a g c y t a	3902
Db	3843	t t c a a g a g a t a g t a c a t c t g a t c a g a a a t a g a a c t a g a c c t t g y t c a g c y t a	3902
Oy	3903	a a c a a a c c c a g t g y t a a a t g t c t c a a g t t c a g c g t t a a c t g c a g a a c c a a t c a a a a g	3962
Db	3903	a a c a a a c c c a g t g y t a a a t g t c t c a a g t t c a g c g t t a a c t g c a g a a c c a a t c a a a a g	3962
Oy	3963	a a t a g a a t c t t t a g a g a a a c t g t t c t c c a c a t c t g a g a t g a g t c t c c a a g g a g	4022
Db	3963	a a t a g a a t c t t t a g a g a a a c t g t t c t c c a c a t c t g a g a t g a g t c t c c a a g g a g	4022
Oy	4023	t t t g a a a a t t t a a c t c a a a g t a t t t g a c a g t g t g t g a t a t a a a a c t a a a g t g	4082
Db	4023	t t t g a a a a t t t a a c t c a a a g t a t t t g a c a g t g t g t g a t a t a a a a c t a a a g t g	4082
Oy	4083	c t c a a a g c a a t c a t a t t t c a a g t g a g c t t a a a g t a c t c t g a c a g t t t g t a t a t t	4142
Db	4083	c t c a a a g c a a t c a t a t t t c a a g t g a g c t t a a a g t a c t c t g a c a g t t t t g t a t a t t	4142
Oy	4143	a t t g g c a t t g c a a t 4157	

DB	4143	atggtcattgcgat 4157
RESULT	13	
US-09-056-285-1		
Sequence 1, Application US/09056285		
GENERAL INFORMATION:		
APPLICANT: Stone, Edwin M.		
APPLICANT: Sheffield, Val C.		
APPLICANT: Alward, Wallace L.M.		
APPLICANT: Fingert, John		
TITLE OF INVENTION: GLAUCOMA THERAPEUTICS AND DIAGNOSTICS		
NUMBER OF SEQUENCES: 43		
CORRESPONDENCE ADDRESS:		
ADDRESSEE: FOLEY, HOAG & ELIOT LLP		
STREET: One Post Office Square		
CITY: Boston		
STATE: MA		
COUNTRY: USA		
ZIP: 02109-2170		
COMPUTER READABLE FORM:		
MEDIUM TYPE: Floppy disk		
COMPUTER: IBM PC compatible		
OPERATING SYSTEM: PC-DOS/MS-DOS		
SOFTWARE: PatentIn Release #1.0, Version #1.30		
CURRENT APPLICATION DATA:		
APPLICATION NUMBER: US/09/056,285		
FILING DATE: Concurrently Herewith		
ATTORNEY/AGENT INFORMATION:		
NAME: Arnold, Beth E.		
REGISTRATION NUMBER: 35,430		
REFERENCE/DOCKET NUMBER: UIA-010.28		
TELECOMMUNICATION INFORMATION:		
TELEPHONE: 617-832-1000		
TELEFAX: 617-832-7000		
INFORMATION FOR SEQ ID NO: 1:		
SEQUENCE CHARACTERISTICS:		
LENGTH: 2800 base pairs		
TYPE: nucleic acid		
STRANDEDNESS: single		
TOPOLOGY: linear		
MOLECULE TYPE: DNA (genomic)		
US-09-056-285-1		
Query Match	37.0%;	Score 2285; DB 14; Length 2800;
Best Local Similarity	99.9%;	Pred. No. 0;
Matches 2275;	Conservative 0;	Mismatches 1; Indels 2; Gaps 2;
OY	3450	aaaagaagagggaagtagtctatgagcaagaagaagacagatccatccaagggcagtgggaaattcg 3509
DB	19	AAAAGAAGAGGAGTACTGATGTATGACGAAGAAGACAATTCAATTCAAAGGGCAGTGGGAATTG 78
OY	3510	accacaaggatatcatgltccacgtgtacctgggttcctaagaggcagggtcataatgtggg 3569
DB	79	ACCACAGGGGATTAATAGTCCACCTGCATCCTGGGTTCTAGGAGCGCAGCGCTAATAATTGTGGGG 138
OY	3570	ggaanaaatcaatlaaagaaggagtgcgggaagacctgattctcaatccttatattttccctt 3629
DB	139	GGAANAATAATCACTTCAAGGGAAGTGCGGAGACCTGATTTCTTAATACVATATATTTTTCCCTTT 198
OY	3630	aagaactagtaatactctgagcaagtcacacaaggtagtaactgaggtctgaagatactactag 3689
DB	199	ACAACCTAGTAGTATTTCTGACGAAGTCACACAGAGTAACTGACGCTGTAAACATTACTTAG 258
OY	3690	tttctccttatbaggaactcttttctctgtggagttagcagcaagaaggcaatccgctt 3749
DB	259	TTCCTCTTATATAGAACCTCTTTTCTCTGTGGAGTTAGCAGCAACAAGGCAATGCCCTT 318
OY	3750	tctttaacaggaagaaaaaacattcctaagagtaaaagccaacaacagattcaagcctcagctc 3809
DB	319	TCTTTTAAACAGAGAAAAACAATTCTCTAAGAGTTAAAGCCAAACAGATTCAACCTTAGGTCT 378

OY 3810 tgcgtacataatgcttgcttcttgaagaatcaltccagcagtgcttaactatctgatcca 3869  
|||||  
Db 379 TGCAGACTTAATGATGATGCTTTTGAAGAAATCATTTTCAGCGATGTTACTATGATTTCA 438  
3870 gaaataagacttagtaaccccttgcagctgttaacaaacccagcttgtaaatgcttcca 3929  
|||||  
Db 439 GAAATATGAGACTACTACCCCTTTGGTCAAGCTGTAAACAACCCATTGTGAATGCTCTCA 498  
3930 agtctagagcttaactctgagaacccaalcca-aagaaatagaatctttagagcaaacctgtc 3988  
|||||  
Db 499 AGTTACAGGCTTAACCTGAGAACCAATCAAAATAGAAATGAAATCTTTAGAGCAAACTGTCT 558  
3989 tctcccaacatctggaaggctgagctgcagaggcagcttggaataatcttaactacaaatlat 4048  
|||||  
Db 559 TTTCCACAC-TCGTGAGGTGAGTCTGCAGGCGCACTTTGGAATATTTACTTACACAACTAT 617  
4049 tgaacagcttgctgtgtaattacaacaataaagctgtcctaaaggcaatcaatattctcaagt 4108  
|||||  
Db 618 TGACACTGTTGTTGATTTAAACAACATTAAGTTGCTCAAGGCAATATTAATTTCAAGTG 677  
4109 gctttaaagcttaactctgcagagcttgcgtatatactatctgctatctgcacttgccttctc 4168  
|||||  
Db 678 GCTTAAAGTTACTTCTGACAGTTTGGTATATTATGGCTATTGGCATTTGCTTTTGT 737  
4169 tcttctcctcttggtcttaataatgtaaaagcaggatataaaccctacagctccagaagcc 4228  
|||||  
Db 738 TTTTTCCTTTGGTGTATTATTAATGAAGCAGGGAATTAACCTACAGTCCAGAAAGCC 797  
4229 tctgaaatctgaaatgaaagaaatataacttctgtcttcaacaccccttaactaaatatta 4288  
|||||  
Db 798 TGTCAATTTAAATGAGGAAAAATTAATTTTGTTTTACCACTTCTAAGTAAATTTA 857  
4289 acaatctatctcaatctgcgaatagaagccaataactcaaaagtgtaataacagtaactctgta 4348  
|||||  
Db 858 ACATTTTATTTCAATTCGAGATAGAGCCATTAACCTCAAAAGTGGTAATTAACGTACCTGTGA 917  
4349 tcttgctatctacaatatagaatccacagacatcttaactatacttaacagcttgctgcagata 4408  
|||||  
Db 918 TTTTGTCTATTACCAATTAAGAAATCACAGACATTTTATTAATTAATTAACGTGTGTGACATA 977  
4409 cgtctgaatgaaatatttatactcaaaaacttaacttgaatctgaacccctctgtctgaatc 4468  
|||||  
Db 978 CGTTGTAAGGAATATTTTACTCAAAACTACTTTGAAATTAAGACCTCTGCTGGATCT 1037  
4469 tgccttcaacataatcaataaacaatcttaaaaatcttgatattctgataatcaatctca 4528  
|||||  
Db 1038 TGTATTTAAACATATTATTAACATGTTTAAATTTTGAATTTTGAATTCATATTTCA 1097  
4529 ttaactcttgctcctcttgtaactataatcttaataatcttgaaacaactctcttgagaag 4588  
|||||  
Db 1098 TTAATCATTTGTTTCTTTGTAATCTATATTTTATTAATTTGAAGAACATCTTTTGTGAGAG 1157  
4589 agtctcccaagatctcaacaaatgagctctctgcacacacacacagagtaagaactgta 4648  
|||||  
Db 1158 AGTTCCCAAGATTTCACCAATGAGGTTCTTTGGCATGCACACACAGAGTAACAACCTGAT 1217  
4649 ttagaagcttaacaatcgaaatctgctgcagatgcgaagaactgaatataagaatctctcc 4708  
|||||  
Db 1218 TTTAGAGGCTTAACATTTGACATTTGCTGCTGAGATGCAAACTGAATTTAGAAATCTCTCC 1277  
4709 aaagataacacagcttgctttaaagctaggggtgaggggggaaatctgcgctctctatagga 4768  
|||||  
Db 1278 AAAGATACACAGTTGTTTAAACCTAGGGGTGAGGGGGAATCTCCGCTTCTAATAGGA 1337  
4769 atgcctccctggaagcctgtagggctgctgctctgcttctgcagctgcgctgtaattctc 4828  
|||||  
Db 1338 ATGCTCTCCCTGAGGCTGTGAGGCTGCTCTTGTGTTCTGAGGCTGATTTATTTTC 1397  
4829 tctgtccctgtaactgctctaaagagcttgcttgaaatctcagctctcttaagataagctctg 4888  
|||||  
Db 1398 TCTGTCTCCTGCTACGTTCTTAAAGACTTGTGTTGATCTCCAGTTCTCTACGATATGTCCTG 1457

OY 4889 gcaacgtgcaggtctcaatgagcttgcaagagtgaatggaataataaactagaataatlat 4948  
|||||  
Db 1458 GCACAGTGCAGAGTTCTCAATGAGTTTGCAGAGTCAAGAAATATAACTAGAAATATAT 1517  
4949 ccttgctgaataatcagacacacagtaagctcctgtgtgaagtgtgtgtacagtgctgtgtgt 5008  
|||||  
Db 1518 CTTGTTGAATTCAGCACACACAGTACGTCGTGAAGTGTGTGTATGCTGTGTGTG 1577  
5009 tgtgtgtgtgtgtgttaaaaccaaagctgagataatagaacatctatctgggtatgggtgca 5068  
|||||  
Db 1578 TGTGTGTGTGTGTGTAAACAGAGTGTGAGATATAGAACATTTATTTGGTATGGGTGCA 1637  
5069 taaatgtggaatgctctctttaaagaagaactccaagaagactctctgaaagtataatctct 5128  
|||||  
Db 1638 TAAATTTGGATGTTCTTTTAAAAAGAACTCCAAACAGACTTCTGGAAGTTATTTTCT 1697  
5129 aagaatctgtctgcagagctgaaagcgaacccctctgtgcaaccccaacacacacag 5188  
|||||  
Db 1698 AAGAACTTGTCTGCAAGCTGGAAGGCAACCCCTGTGCAACCCCAACCTCTACG 1757  
5189 tggcaacctctgtctctcccaatgaagggcttggtctcccaatataataaactctctg 5248  
|||||  
Db 1758 TGGCACTCTGTCTTCCCAATGAAGGCTGGCTCCCAATATATATAACCTCTCTGG 1817  
5249 agctcgggcaatgagcagcagcaaggccaacccaatccaggaactctcagaacagagactct 5308  
|||||  
Db 1818 AGCTCGGCAATGAGCCAGCAAGGCGCAACCCATCCAGCACCTCTCACACAGCAAGCTTT 1877  
5309 ccagaggaagcctcaacaagcctctgaatgaagtctctctgtgcagtgctgcagact 5368  
|||||  
Db 1878 CCAGAGAAACCTCACCAACCTCTGCAATGAGAGTCTTCTGTGCAAGTTGCTGCAGCTT 1937  
5369 tgggcttgaaatgctcagctgtctcagctgtctctcggcctctgctgtgtgaaatgctgga 5428  
|||||  
Db 1938 TGGGCTGAGATGCCAGCTGTCCAGCTGCTGCTTTCAGCTGCTGCTGTGTGGATGTGG 1997  
5429 ggcacaggaacagctcagctcagaaggaagccaatgacaaagtgtgcgaatgcgaatatacct 5488  
|||||  
Db 1998 GGCAGAGACAGCTCACCTCGAAGGCGCAATGACAGAGTGGCGATGTCAGATTAATCTT 2057  
5489 cagtgctgcagctcccaatgaatcagctgtgcgaagcagaagccagctgaatgcgaatc 5548  
|||||  
Db 2058 CAGTGTGCGCAGTCCCAATGAATCCAGCTGCCAGAGCAGAGCCAGCCATGTCACTCAT 2117  
5549 ccaataactcagagaagacagcagcaccacagctctagaactctgaaagccaacaaagctc 5608  
|||||  
Db 2118 CCATTACTTAACAGAGAGACAGCAGCACCCCAAGCCTTAAGACTGTGAAGCCCAACAACTCTG 2177  
5609 actcagctccctggaagagcctctccaacaatctgacacttggaacagctgcgaagccca 5668  
|||||  
Db 2178 ACTCACCTCCCTGAGAGGCTCTCTCCACCAATTTGACCTTGGACCAAGCTGCCAGGCCCA 2237  
5669 ggaagcccaaggaagctctcagaaggaagcttggaacacccctggaagcgggaacagc 5728  
|||||  
Db 2238 GGAAGCCCAAGAGGCTCTGCAAGGAGCTGGGACCTCTGAAGCGGAGCGGAGCCAGCT 2297  
5729 ggaatacccaacagaagcttggaagactgctcaacagcaacccctcctcgaagcaagctcag 5788  
|||||  
Db 2298 GGAACCCCAACAGAGAGTGTGAGACTGCTTAACACCACTCTCTCCGAGACAGTCACT 2357  
5789 tctgagaagaagaagaagcgaactaagcagaagaatgaaatcttgccagaagagtgtga 5848  
|||||  
Db 2358 TCTGAGGAAGAAAGAACGCACTTAAGGCCAAGAAATGGAATCTTGCCAGAGAGTTGGA 2417  
5849 aagcaagcagcagaaggtgagcagagcttggaagggggcagtgctcccaaacccgaagac 5908  
|||||  
Db 2418 AAGCACACACAGAGAGTGAAGGCTGAAGAGGGGCGAGTCTCCCAACCCGAGACAC 2477  
5909 tgcctcggctgtgcacacagctccagaagaagttaagaatgagagtgaggggagctctga 5968  
|||||  
Db 2478 TCTCTGGGCTGTGCAACAGGCTCCAGAAAGTAAGATGCAAGTGGGGGAGCTCTGA 2537  
5969 gttcagaaggtgatatgctgtgtagtaccgtgctaaagcgctcgaagcctctcctgccc 6026

Db 2538 GTTCACGAGTGATGCGTCGTAGTACGAGGCGTCACAGGCTCCCTGCC 2595  
|||||  
RESULT 14  
US-09-056-285A-1  
Sequence 1, Application US/09056285A  
GENERAL INFORMATION:  
APPLICANT: Stone, Edwin M.  
Sheffield, Val C.  
Alward, Wallace L.M.  
Fingerl, John  
TITLE OF INVENTION: GLAUCOMA THERAPEUTICS AND DIAGNOSTICS  
NUMBER OF SEQUENCES: 43  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: FOLEY, HOAG & ELIOT LLP  
STREET: One Post Office Square  
CITY: Boston  
STATE: MA  
COUNTRY: USA  
ZIP: 02109-2170  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/056,285A  
FILING DATE: 07-Apr-1998  
ATTORNEY/AGENT INFORMATION:  
NAME: Arnold, Beth E.  
REGISTRATION NUMBER: 35,430  
REFERENCE/DOCKET NUMBER: UIA-010,28  
TELEPHONE: 617-832-7000  
TELEFAX: 617-832-1000  
INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 2800 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: DNA (genomic)  
SEQUENCE DESCRIPTION: SEQ ID NO: 1:  
US-09-056-285A-1  
Query Match 37.0%; Score 2285; DB 14; Length 2800;  
Best Local Similarity 99.9%; Pred. No. 0;  
Matches 2575; Conservative 0; Mismatches 1; Indels 2; Gaps 2;

Db 319 TCTTTTAAACAGAAAGAAACATTCCTTAAGAGTAAAGCCAAACAGATTCAAGCTAGGCT 378  
|||||  
Qy 3810 tgcctgactatagatggcttttttggaaaaatcattcaagagatgttaactatcgtatca 3869  
|||||  
Db 379 TGCTGACTATATATATGCTTTTGGAAAAATCATTTAGCGAGTGTATCTATGATTCA 438  
|||||  
Qy 3870 gaaatgagactgtaacctgttcagcgttaacaacaaccagctgttaaatgtctca 3929  
|||||  
Db 439 GAAATGAGACTAGTACCCCTTGTGTCAGCTGTAAACAACACCATTGTAAATGTCTCA 498  
|||||  
Qy 3930 agtcaggcttaactcgcagaaaccaatcaaa-aagaaatagaatcttagagcaactgct 3988  
|||||  
Db 499 AGTTACAGCTTAATCTGCAGAACCAATCAATAAGAAATAGATCTTTAGACCAAACTGTGT 558  
|||||  
Qy 3989 ttcccaactcgtgaggtgctcgcagggcaggttggaataatacttaactcaaatat 4008  
|||||  
Db 559 TTCTCCAC-TCTGAGGTGAGTCTGCCAGGCACTTTGGAATATTTACTTCACAAATAT 617  
|||||  
Qy 4049 tgaacactgtctgtgtaatacaacaataagctcgaaggcaatcattatcaagctg 4108  
|||||  
Db 618 TGACACTGTGTGTGATTTAAACAATTAAGTGTCTCAAGGCAATCATTTCAAGTG 677  
|||||  
Qy 4109 gcttaagttactctgcagagtttggatattatgtgctatgccaattgcttttgt 4168  
|||||  
Db 678 GCTTAAAGTTACTTCTGACAGTTTGTGATATTTATGGCATTTGCCATTGTGCTTTTGT 737  
|||||  
Qy 4169 ttttccctctgggttattatgaatgaagcagggatattatcaactcaagtcgaagacc 4228  
|||||  
Db 738 TTTTTCCTTTGGGTTTATTAATGTAAGCAGGATTTATTAACCTACAGTCACAAAAGCC 797  
|||||  
Qy 4229 tggaaattgaaaggaagaaatattacattgttttcccaactcctaactatca 4288  
|||||  
Db 798 TGCTAATTTGAATGAGAAAAAATTACATTTTGTTTTACCACTTCTAATTAATTGA 857  
|||||  
Qy 4289 acattatccactcgtcgaatagacccaataaactcaaaagtgtgataaactgactgtga 4348  
|||||  
Db 858 ACATTTTATTCATTTGCGAATAGAGCCATTAACCTCAAAAGTGTAATTAACAGTACTCGGA 917  
|||||  
Qy 4349 tttgtcaattaccaatgaagaatcagagacatttatctatatcaagctgttgagata 4408  
|||||  
Db 918 TTTTGTATTACCAATAGAAATACAGACATTTATATCTATTAACGTGTTGCCAATA 977  
|||||  
Qy 4409 cgtgtgaatgaaatatttatactcaaaactccttgaatattgaactcgcgtgagctc 4468  
|||||  
Db 978 CGTTGTAAGTGAATATTTTACTCAAACTACTTTGAATTAAGCTCTCGTGGATCT 1037  
|||||  
Qy 4469 tgttttaacatataataaaacatgtttaaaatttgatatttgaataatcatalca 4528  
|||||  
Db 1038 TGTTTAAACATATTAAATAAACATGTTTAAATTTGATATTTGAATCATATTTCA 1097  
|||||  
Qy 4529 ttatcattgttcccttctgtaactatattatatttgaagaacatcttcgagaag 4588  
|||||  
Db 1098 TTATCATTTGTTCTTCTTGTATCTATATTTATTTGAAACATCTTTCGAGAAG 1157  
|||||  
Qy 4589 agtcccccagatltcaccaataggtctctggcattgacccaacagaagtaagaactgat 4648  
|||||  
Db 1158 AGTTCGCCAGATTTACCAATGAGAGTTCTTGCGATGCAACACACAGATGAAGACTGAT 1217  
|||||  
Qy 4649 ttaagagctaacatltgacatgtgtcctgagatcaagaactgaaatagaagaatcctccc 4708  
|||||  
Db 1218 TTAAAGGCTAATCATTTGATTTGCTGAGATGCAAGACTGAATTAAGAAAGTTCTGCC 1277  
|||||  
Qy 4709 aaagatacaagttgttttaagctlaaggggtgaaggggaaatctgcgcgtctataga 4768  
|||||  
Db 1278 AAAAGATACACAGTTGTTTAAAGCTAGAGGGGAGAGGGGGAATCTGCCGCTTCTATAGGA 1337  
|||||  
Qy 4769 atgctcccccggagacctcgtgaagggtgctgtccctgtgtcgtgctgttatttttc 4828  
|||||  
Db 1338 ATGCTCTCCCGGAGCCGTGAGGgtcgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 1397  
|||||  
Qy 4829 tctgtccctgtacgtcttaaaagactgttctgatactccagctccatagaactgtgctg 4888  
|||||  
Db 1398 TCTGTCCCTGTACGCTTAAAGGACTTGTGTGATCTCCAGTTCCTAGCATTAATGTGCTG 1457  
|||||

[illegible]

```

Qy      5569 gttacgacagtgatgatcgttcctgcgtgtgttaacctgctcacaggcgctccaggcctccctggcc 6026
          |||||||
Db      2538 GTTTCAGCAGGATGGAATGGCTGTGTAGTGACCGCTGCACAGGCGCCGCTCACGAGCTCCCTGCC 2595

RESULT 15
US-09-366-952-1
? Sequence 1, Application US/09366952
? GENERAL INFORMATION:
?   APPLICANT: Stone, Edwin M.
?   APPLICANT: Sheffield, Val C.
?   APPLICANT: Alward, Wallace L.M.
?   APPLICANT: Fingert, John
?   TITLE OF INVENTION: GLAUCOMA THERAPEUTICS AND DIAGNOSTICS
?   NUMBER OF SEQUENCES: 43
?   CORRESPONDENCE ADDRESS:
?     ADDRESSEE: FOLEY, HONG & ELIOT LLP
?     STREET: One Post Office Square
?     CITY: Boston
?     STATE: MA
?     COUNTRY: USA
?     ZIP: 02109-2170
? COMPUTER READABLE FORM:
?   MEDIUM TYPE: Floppy disk
?   COMPUTER: IBM PC compatible
?   OPERATING SYSTEM: PC-DOS/MS-DOS
?   SOFTWARE: PatentIn Release #1.0, Version #1.30
? CURRENT APPLICATION DATA:
?   APPLICATION NUMBER: US/09/366,952
?   FILING DATE: Concurrently Herewith
? ATTORNEY/AGENT INFORMATION:
?   NAME: Arnold, Beth E.
?   REGISTRATION NUMBER: 35,430
? REFERENCE/DOCKET NUMBER: UIA-010.28
? TELECOMMUNICATION INFORMATION:
?   TELEPHONE: 617-832-1000
?   TELEFAX: 617-832-7000
? INFORMATION FOR SEQ ID NO: 1:
?   SEQUENCE CHARACTERISTICS:
?     LENGTH: 2800 base pairs
?     TYPE: nucleic acid
?     STRANDEDNESS: single
?     TOPOLOGY: linear
?   MOLECULE TYPE: DNA (genomic)
US-09-366-952-1

Query Match      37.0%; Score 2285; DB 17; Length 2800;
Best Local Similarity 99.9%; Pred. No. 0;
Matches 2575; Conservative 0; Mismatches 1; Indels 2; Gaps 2

Qy      3450 aaaagaaggaagatagtgatgtgaagcaaaagaacagatcatcacaagggaagtggaagt 3509
          |||||
Db      19 AAAAGAGAGGGATTAGTGTATGAGCAAGAAGACAGATTATTTCAAGGGCAGTGGCAATTG 78

Qy      3510 accacaaggattatagtctccacgttgactccctgggttctaaggaagcaaggccatacttg99g 3569
          |||||
Db      79 ACCACAGGAGATTATAGTGTACACGTAACGTCGCGGTTCTTAGAGGACGAGGCGTATATTCTGGGG 138

Qy      3570 ggaaaaaaatccagttcaaagggaagtcggagaccctgaattcctaatacataatttctcctt 3629
          |||||||
Db      139 GGAATAAAATCATCTTCAAGGGAAGTGGGGAGACTATTTCTAATCTATATATTTTTCTTCCTTT 198

Qy      3630 aaagctcgaatatctctagcaacatccacaaagtagttaacttgagcttgttaagaatttctting 3689
          |||||
Db      199 ACAACCTGAGTATATTCTGTGACAAGTACACAGGTTAGTAACTGAGGCTGTAAAGATTACTTAG 258

Qy      3690 ttctcccttattagaacctcttctctctgtgtgagtttagcaagcacaagggcaatccgctt 3749
          |||||
Db      259 TTTCCTCTATTATGGAACCTCTTTTCTCTCTGTGAGATTACAGACACAAAGGGCAATCCCGTT 318

Qy      3750 tcctttaacaggaagaaaacattcctaagagtaaagccaacagattcaagccttagtct 3809
          |||||
```

Dh	319	TCCTTTAACGAGAAACATTCCTAAGAGTAAGCCAAACAGATTCAAGCCTAGGCT	378
Oy	3810	tgctgcatatataatgattggttcttctgaaataatcattcagagatgcttactacatcgtatca	3869
Dh	379	TGCTGACTATATGATTGCTTTTGAATAATCTTCAGGAGATGTTTACATATCGATTCA	438
Oy	3870	gaatacgaagctagtaaccctcttgctcagctgcttaacaacacccagcttgtaaatgctca	3929
Dh	439	GAAATGAGACACTAGTACCTTTTGGTCACTGTATAACAAACACCATTTGTAATGTCTCA	498
Oy	3930	agtcagagcttaacctgcagaacccaatcaaa - aagaatagaatcctctagagcaaatctgt	3988
Dh	499	AGTTCAAGGCTTAAGCTGAGAACCAATCAATAATAGAAATAGAAATCTTTAGCAAAACCTGT	558
Oy	3989	tcttcacacatctggaagtgagctctgcagagcgcttgtaaatattacttcacaaglat	4048
Dh	559	TTCTTCAC - CTGTGAGGTGAGTCTGCAGGCGAGTTTGAATAATTTACCTTCACAACTAT	617
Oy	4049	tgacactgcttgctgtaatacaacaataaagcttgctcaaaagccaatcattatcctcaagtg	4108
Dh	618	TGCACTGTTGTTGTTATTAACAACATTAAGTTGCTCAAAAGGCATATTTTCAAGTC	677
Oy	4109	gcttaaaagctactctgcagagctcttggtatataatctggtcaltgcacattgctcttct	4168
Dh	678	GCTTAAAGTTACTTTCAGAGTTTGGTATATTATTTGGCTAATTTGCCATTTGGCTTTTGT	737
Oy	4169	tcttctcctcttggtcttataatgtaagcagaggaatataaacctacagctccagaagcc	4228
Dh	738	TTTTTCTCTTTGGCTTTTAAATGTAAGAGGAGATTATTAACCTTCAGTCACAAAGGC	797
Oy	4229	tgtagaattgtaaggaagaaataatctacattcttgcttcttaacacactctactaatctta	4288
Dh	798	TGCGAATTTTAAATGAGAAAAAATTTACATTTTGTTTTACACACTTTCTAATAATTTA	857
Oy	4289	acattctatctcaatctgcgaatagagccaataaactcaaaagtgtaataacagctactgta	4348
Dh	858	ACATTTTATTCATTGCGAATAGAGCCATTAACCTCAAAAGTGTAATTAACGTACTCTGGA	917
Oy	4349	tcttgctcatctacaatgaaatcaacagacattctatactatatactacagcttgctgcata	4408
Dh	918	TTTTTGCTATTACCAATTAAGAAATCACAGACATTTTATTAATTAACAGTTGTTCAATA	977
Oy	4409	cgcttgtaagtgaaatattctatactcaaaactcttgaaattagacccctgcctggaatc	4468
Dh	978	CGTTGTAAGTGAATATTTTACTCAAAACTACTTTGAAATTTAGACCTCGCTGAGATCT	1037
Oy	4469	tgcttctacaataatcaaaacagcttcaaaattctgataatttgataatcatalctca	4538
Dh	1038	TGTTTTTAACATATTATTAATAAACATGTTTAAATTTTGATATTGTAATCATATTTCA	1097
Oy	4529	ttatcatcttgctcctctgtaactataatttataattctgaaacactcttcgagaag	4588
Dh	1098	TTTTATCATTTTGTTCCTTTGTAATCTATAATTTATATTTTGAAACATCTTTTCGAAG	1157
Oy	4589	agctccacagatctacacaaatgaagctctctgcgaatgcacacacacagagtaagaagcat	4648
Dh	1158	AGTTCCCAATTTTCAACCAATGAGGTTCTTGCGACTGCAACACACAGATAGAACTGAT	1217
Oy	4649	ctagagagctaaacttgacatctgctcctgcgaatgcagaagctgaaattagaagctctccc	4708
Dh	1218	TTTAGAGCTTAACATTGACATTTGGTGCTGAGATGCAAGACTGAANAATTAGAAAGTTCTCC	1277
Oy	4709	aaagaatacaagcttgcttctaaagctagaggtgagggggaatactgcgcgtctctatagga	4768
Dh	1278	AAAGATTAACAGATTGTTTAAAGCTAGGGGTGAGGGGGGAATGTGCCGCTTCAATAGGA	1337
Oy	4769	atgctccctctgagagctctgtaaggctgcttcctctgcttgcttggtctgagcttctcttc	4828
Dh	1338	ATGCTTCCTCGAGGCTCGTAGGGTCTGTCTTGTGTCTGCTGCTGCTTTATTTTTC	1397
Oy	4829	tcgtccctgctacagctcttaagaagcttgcttggaatcctcagctctcagcaatagtgccg	4888
Dh	1398	TCGTCCCTGCTAGCTTAAAGGACTTTGTTGATCTCCAGTTCTTAAGCATATAGTGCCTG	1457

---

Oy	4889	gcacagtgagaggtctcattatgagtttgcaagatgaatcgaagaataataaactagaataata	4948
Dh	1458	GCACAGTGCAAGTTCTCAATGAGTTTGCAGAGTGAAGAAATTAATACTAGAAATATAT	1517
Oy	4949	ccttgctgaataacagacacacagtagccctggtgtaagtgctgtaagctgctgctgctg	5008
Dh	1518	CTTTGTTGAATACGACACACAGTAGTCTGTGTATAGTGTGTAGTGTGTGTGTGTGTG	1577
Oy	5009	tggtgctgctgctgctgctgctgctgctgctgctgctgctgctgctgctgctgctgctg	5068
Dh	1578	TGCTG	1637
Oy	5069	taaatlggagtgctctctcttcttcttcttcttcttcttcttcttcttcttcttcttctt	5128
Dh	1638	TAAATGGAGTTCTTTTAAAGAAACCTCAACACAGACTTGTGAAGATTATTTTCT	1697
Oy	5129	aagaatcttgctgcaagctgaaagcaaacccctctgctgcaagcccaacccagctcag	5188
Dh	1698	AAGAACTTCTGTGCGACGTAAGCAACCCCTGTGTGCAAGCCCAACCCAGCTCAGC	1757
Oy	5189	tgagcactctgctctctcccaatgaagagctgctctccaglatataataacccctctg	5248
Dh	1758	TGCGCACTGTCTTCTCCCATGAAGGCTGCTCCCATGATATATTAACCTCTCTCG	1817
Oy	5249	agctcgagctgagccagagcccaatccaggaacccctctagaagcagaagctct	5308
Dh	1818	AGCTGCGGCAATGACCGACAGAGCCACCCATCAAGGCACTCTAGCAACGACAGCTT	1877
Oy	5309	ccaagaagaaccccaacgaagcctctgcaatgagttctctctgctgcaagctctgcaagct	5368
Dh	1878	CCNAGAGAGCTTACCAAGCTCTGCATATGAGTTCTTGTGTGACAGTTGCTGACGCTT	1937
Oy	5369	tgagcttgagatgctcagctgctcagctgctcctgctgctgctgctgctgctgctgctg	5428
Dh	1938	TGCGCTGAGATGCGACCTGCTCCAGCTGCTCTTCTGCGCTGCTGCTGCTGCTGCTG	1997
Oy	5429	ggccagagacagctcagctcagaggaaggaaggaaggaaggaaggaaggaaggaaggaag	5488
Dh	1998	GCCAGGACAGCTCAGCTCAGGAAAGCCAAATGACAGAGTGGCGATGACGATATCTT	2057
Oy	5489	cagctgctcagctcagctcagctcagctcagctcagctcagctcagctcagctcagctc	5548
Dh	2058	CAGTGTGCGAGCTCCATATGATCCAGCTGCGCAGAGAGGCGAGGCGAGGCTCAGTAT	2117
Oy	5549	ccataactctacagagagcagcagcaccacacagctctgagcttgagagccacacacagctc	5608
Dh	2118	CCATTAACCTTACAGAGACAGACACACACCAACGCTTGAACCTGAGAGGCCACCAAGCTCG	2177
Oy	5609	actcagctcctctgagagccctcccaacaaatgacattgacattgacattgacattgacatt	5668
Dh	2178	ACTCAGCTCCTTGAGAGGCTCTCCACCAATTAACCTTGAACAGAGCTGCGAGGCCCA	2237
Oy	5669	ggaagccagagagagctgcaagagagctgagcaccctgagcgagcgagcgagcagct	5728
Dh	2238	GGAATCCAGAGAGGCTGCGAGAGGAGCTGGCACTTGAGGGGGAGGCGGAGCCAGACT	2297
Oy	5729	ggaaccccaacccagagagcttgagagctgctacagcaacctctccgagacaaagctcag	5788
Dh	2298	GGAACCCAAACAGAGAGTGGAGAGCTCTTACAGCAACCTCTCCGAGACAGATCAGT	2357
Oy	5789	tcgtgag	5848
Dh	2358	TCGTGAG	2417
Oy	5849	aagcagcagcagagagtagcaagagcttgagagagggccagtgctcccaagccagagac	5908
Dh	2418	AAGCAGAGCCAGAGAGTAGCAAGCTGAGAGAGGCGAGGTCTCCAGACCCAGAGAC	2477
Oy	5909	tgctcgagctgctgcaacagagctccagaggaagtaagaaatgagagatgagggagctctga	5968
Dh	2478	TGCTCGGCTGTGCGACAGGCTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	2537

Qy 5969 gtccagcaggtagatagctcgttagtgacctgctctacagagcgctccagggcctccctggcc 6026  
|||||  
Db 2538 GTTCAGCAGCGTAGATATGCTCTGTAGTACCTGTACAGGCGCTCCAGGCGCTCCCTGCC 2595

Search completed: November 9, 2001, 03:29:57  
Job time: 51691 sec